AVIATION HISTORY IN GREATER KANSAS CITY

COMPILED BY THE EDITORS
OF HISTORIC AVIATION MAGAZINE

COVER:

CURTISS CARRIER PIGEON flies over Laurel Heights farm May 12, 1926 to land at Richards Field with Kansas City's first regularly scheduled air mail.

THIS PAGE:

BEN GREGORY'S SWALLOW, one of several flown by the pioneer Kansas City pilot.

(Both photos by R. S. Knowlson. Cover photo from Lou Holland collection, Kansas City Museum; inside photo from Ben Gregory collection.)

Foreword

From its beginning, aviation history has been a story of endless research into the unknown environment of air. With courage, man overcame his failures with success.

In time, aviation became a part of man's life, and flying spread across the United States. In the center of America, Kansas City contributed much to aviation development.

HISTORIC AVIATION MAGAZINE has undertaken the responsibility of preserving the historic moments that combined to make Kansas City a major aviation center.

From the early pages of history to the aerospace future, here are some of the events that made *Aviation History in Greater Kansas City.*

THREE DeHAVILLAND DH-4's, owned by the U.S. Air Service and based at Richards Field in the twenties. (1)

AVIATION HISTORY IN GREATER KANSAS CITY

by the Editors of Historic Aviation Magazine

Contents

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Lighter-Than-Air Days

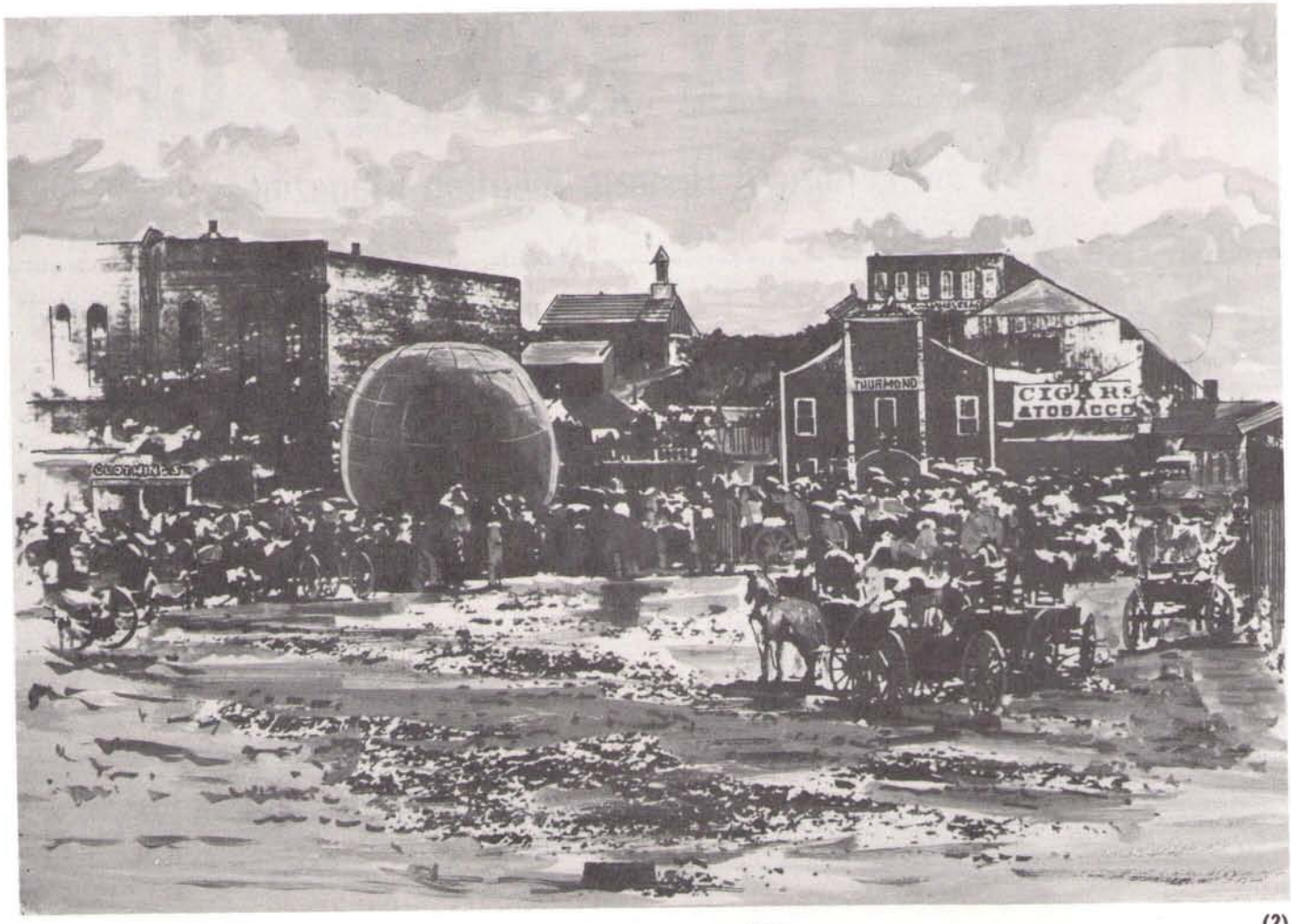
THE FIRST BALLOON ASCENSION

On July 3, 1869, the Hannibal bridge was completed, and Kansas City celebrated in a riot of speeches, bonfires, parades and barbecues. And to add a note of zest to the occasion, a local jeweler, H. H. Holman, treated the crowd to a balloon ascension.

It was a somewhat nondescript gasbag, compared to the flamboyantly colored aerostats that were rising in Europe, but it was a balloon. Holman filled it with gas from a gas main until it stood 70 feet high. Then he invited anyone in the crowd who wished, to be his companion on his aerial voyage. His invitation was declined, although there must have been at least one brave soul amid the mob of 40,000 celebrants that crowded the riverfront community "near Leavenworth," as *Harpers Weekly* put it.

Finally, the bag was fully inflated, and Holman, wearing his finest Sunday - go - to - meeting finery, gave the order to cast off. Released from its tethers, the balloon lifted ponderously into the summer sky, and drifted to the east, as cheers and shouts went up from the crowd. It is recorded that the "hills around the river were carpeted with skirts" as women settled themselves on the ground to watch the ascension. Later, Holman descended on a farm east of Independence.

The ascension apparently did Holman's jewelry business no harm, because "between 1870 and 1875," as a witness recalled later, Holman made another ascension. This time another balloonist, Professor John Steiner, went up in a separate balloon. But it was Holman who stole the show. Not only did his balloon rise higher and float farther than Steiner's, but the jeweler scattered handbills advertising his shop as he sailed over Clay county. Again attired in elegant clothes, complete with a top hat, Holman made a descent near what is now Claycomo, and hired a carriage to return him to Kansas City. He was back at his store in time to do a land-office business before quitting time.



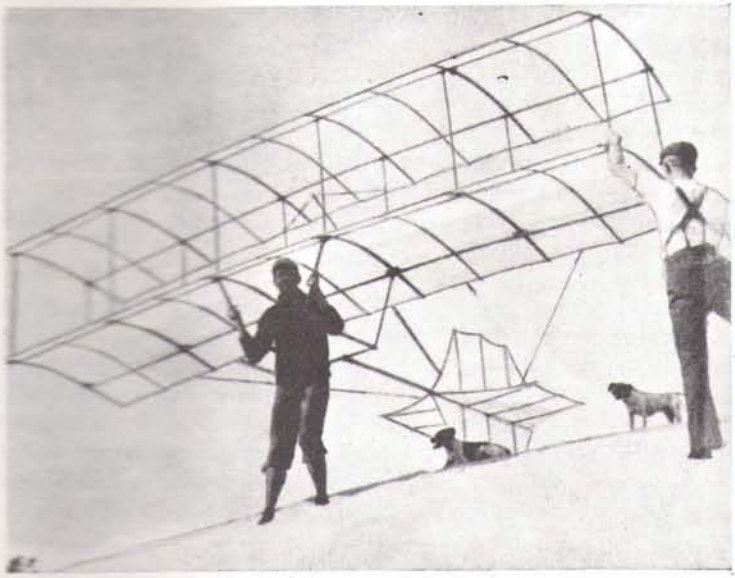
(2)

RETOUCHED PHOTO shows balloon being inflated in Kansas City's "downtown area" in 1869.

A WORD ABOUT CHANUTE

OCTAVE CHANUTE (4)

CHANUTE GLIDER, 1898. (3)



The Hannibal bridge itself was a creation of Octave Chanute, one of America's foremost civil engineers, who would later become known as the "father of aviation" for his work with gliders, and his encouragement of the Wright brothers. Chanute, who also designed the stockyards in Chicago and Kansas City, established his reputation with the bridge, a timber and stone structure across the "unbridgable" Missouri. The bridge, which was to stand until 1917, was the wonder of the engineering world in its day. When it was finished, Chanute left Kansas City, but returned in 1884 to live and work in the area, "building numerous small bridges." By this time he was 62 years old, and just on the threshold of a new career which would directly contribute to the invention of the airplane.

HORACE WILD AND HIS AIRSHIP

Early in August, 1906, Horace B. Wild, a 26-year-old electrician from Chicago, brought his airship to Kansas City for a series of exhibitions. The handsome aeronaut had learned his art from Roy Knabenshue, the famed airship pilot who had flown America's first successful dirigible at the St. Louis World's Fair in 1904. Wild had made his first ascension December 14, 1905.

The airship, named the *Eagle*, arrived August 6 by train. It was the second of Wild's dirigibles, and named after the first. Its envelope was 75 feet long and 16 feet in diameter, and held 10,080 cubic feet of gas. It was made of varnished Japanese silk. A net of fishing line supported a spruce framework which carried a 6-hp, 2-cylinder engine. The engine drove a 16-foot propeller on the front of the ship. The propeller blades were fabric, stretched over a spruce frame. At the rear of the dirigible was a canvas rudder, with a cord for control. Vertical control was achieved by Wild walking back and forth over the spruce framework to raise or lower the pitch of the prop. He could also valve gas out of the envelope. No mention was made of a ballast system, in case too much gas was expelled.

The exhibition was to take place at Forest park, on Independence avenue, in the east part of town. After a series of false starts and delays, Wild made his first flight in the morning of August 10. The *Eagle* went up, circled over Independence Avenue, and landed in a vacant lot. The flight lasted a total of three minutes. Ten minutes later Wild went up again, and attempted another landing in the vacant lot. About 500 feet from the lot, however, the engine stalled, and Wild was unable to steer his powerless airship. The *Eagle* then rose in the hot August sun until it "diminished like a mere shining toy." Almost out of sight, it sailed south from Independence avenue, across Elmwood Cemetery. Then it began to grow larger as Wild let out some of the gas. It floated to earth, landing in the Fisk Deaconess home, on Fifteenth street between Quincy and Denver streets. Wild and his mechanics then worked an hour and a half to re-balance the car to compensate for the loss of gas, and another flight was attempted. But this time the spruce frame of the propeller broke, and the *Eagle* came down again. Wild immediately had a duplicate propeller fitted, and took off again.

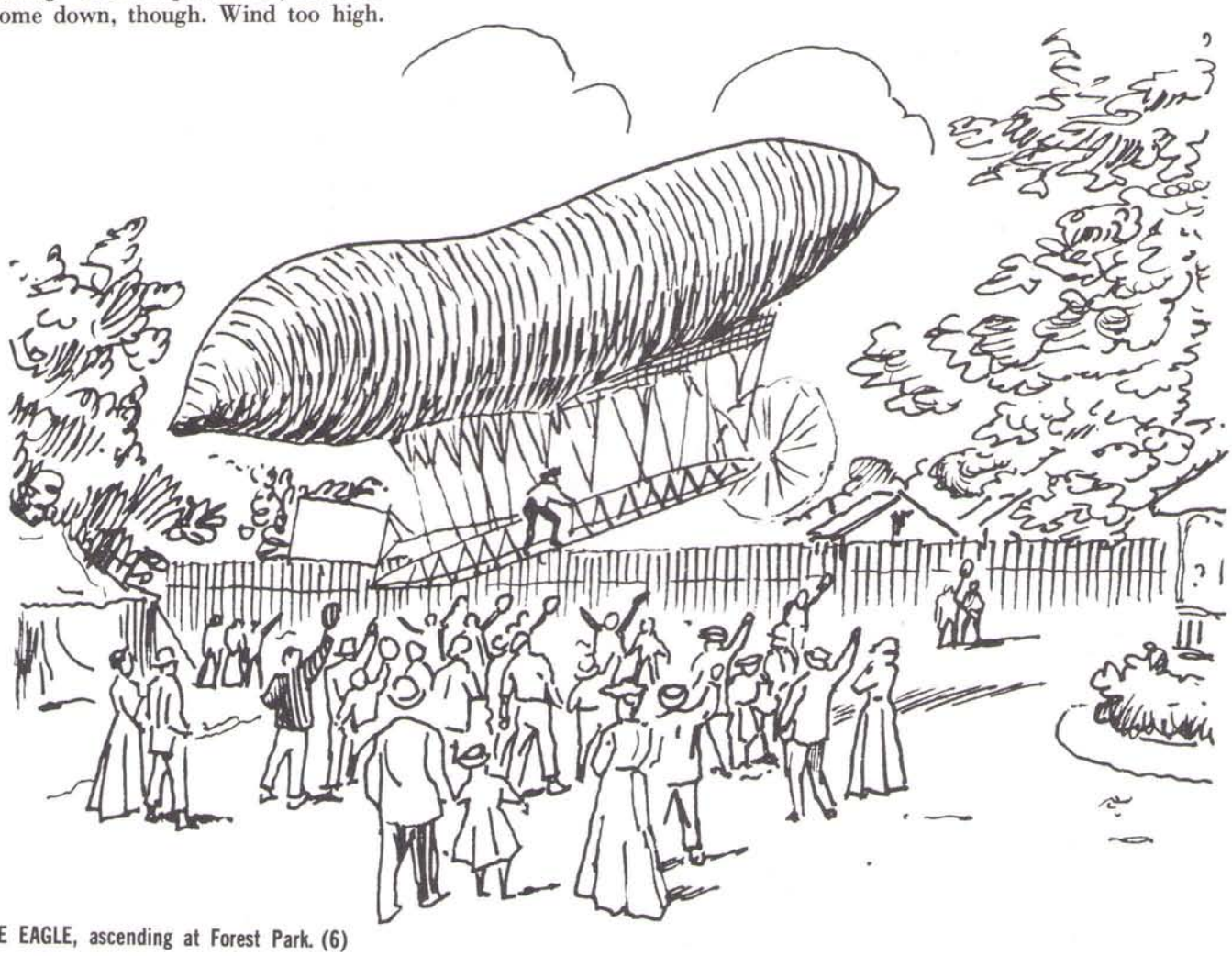
HORACE WILD (5)

This time, Wild vowed to attempt a flight to the Long building, at 10th and Grand in downtown Kansas City. Henry Merrill was waiting at the park gate to follow the airship in his large steam-powered automobile. "The *Eagle* rose gracefully above the trees, its propeller beating the air musically," penned a local journalist. Horace Wild, standing astride the flimsy frame, waved his cap, "a fearless and gallant figure."

But presently the airship's nose dipped earthward, and it came down once more. Merrill drove his car across the sidewalk, over some broken fence rails, and along the field, where the airship was anchored. Horace Wild was walking up and down on the grass, his face white, his eyes shining. He was explaining the cause of his descent to a crowd of barefooted boys and women. "See me go up?" he was asking. "See me up in the sky? Had to come down, though. Wind too high. Felt sick. See that flag? That shows how the wind's blowing." The flag, noted a reporter at the scene, was flapping almost idly on the pole.

After a brief consultation with his mechanic, Wild was off again, followed closely by the steam car. Wild guided the *Eagle* in "fine curves and figure eights" as it floated over Independence avenue. The gathering crowd clapped and cheered. But again the airship came back. Then the engine stopped, and again Wild began ascending. Merrill, in the lumbering steam car, raced across back streets and vacant lots, hoping to reach the crash scene in time to rescue Wild from the remains of his airship. But when Merrill reached the Fisk home, there was the *Eagle*, completely unscathed, with Wild posing for photographs. His brother was gasping on the ground, having raced several blocks on foot to retrieve the trailing rope. The crowd, now numbering in the thousands, surged into the yard. People began asking Wild why he didn't go up again. The aeronaut was busy posing for photographs, and protested that there was "too much wind." He pointed at the smoke rising from factory stacks to the west. The reporter noted the smoke was rising straight up. Shortly before noon, Wild tore himself from his admirers and went up again. This time he was forced down quickly by a broken propeller.

The next afternoon, Wild took the *Eagle* up again, trying once more for the Long building at 10th and Grand. But the anemic engine and propeller were ineffective against a gentle north wind, which caused the airship to drift all the way south to 83rd and Troost.



THE EAGLE, ascending at Forest Park. (6)

(Wild claimed he saw he couldn't buck the wind current, so he "gave the folks a show in the south part of town.") He made a landing on the Rowe farm, and was soon surrounded by "ten motor cars, six carriages, forty-six adults, twenty-five children, two dogs, one pup in arms, and three bicycles." At least, that's what he told the reporter after riding back to Forest park in an automobile.

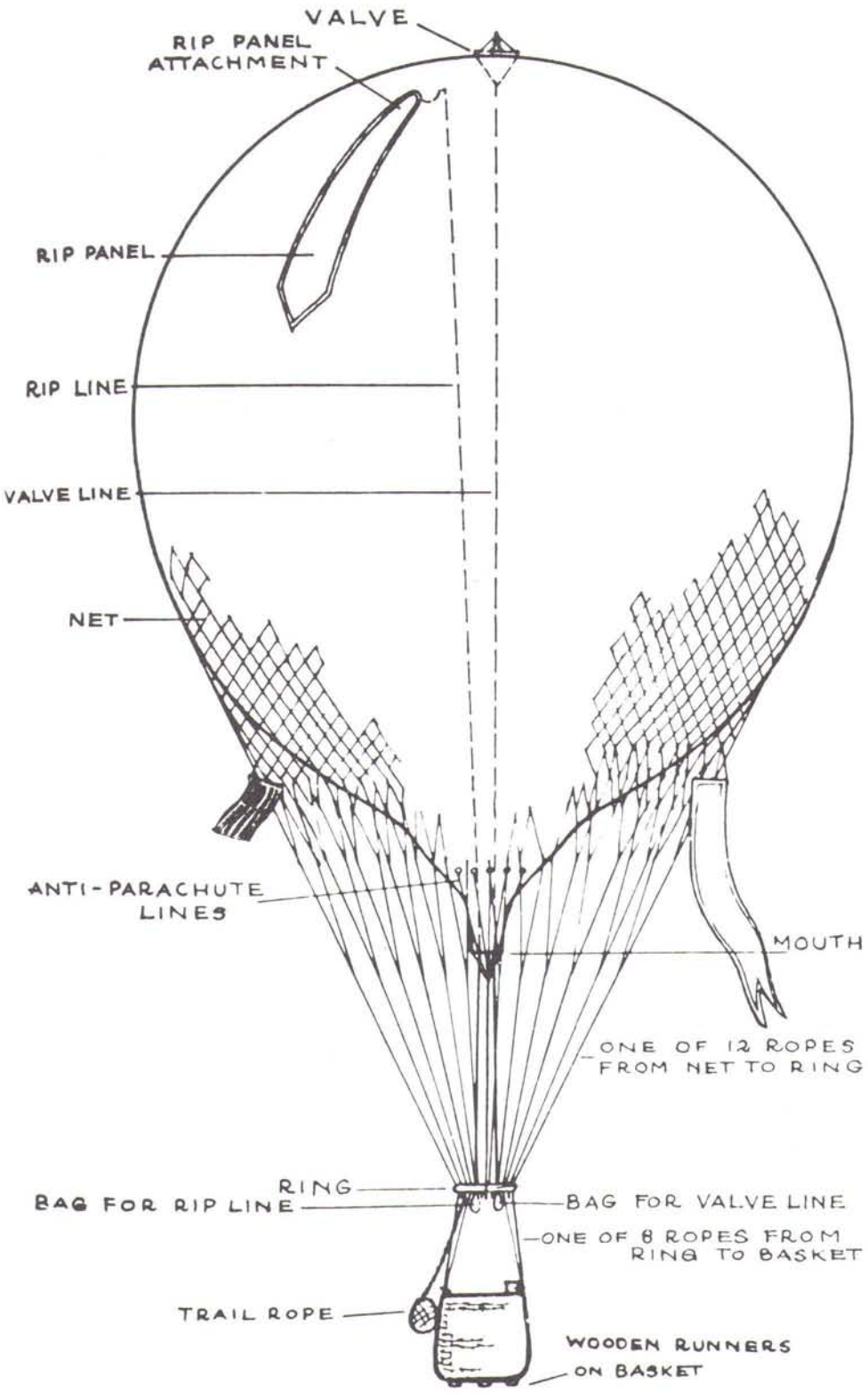
Wild made one more attempt to reach the Long building. But as soon as he was fifty feet up, the wind caught the *Eagle* and blew it south. Wild pulled the cord which controlled the canvas rudder, but it had little or no effect. The big propeller turned around "like a windmill" and the airship "behaved more like a common balloon." But Horace Wild was happy, and so were most of the people who craned their necks to see the *Eagle* fly. The next day Wild left for an exhibition engagement in St. Louis.

THE BALLOONISTS' UNION

By 1910, ballooning had become so popular that a trade union actually was formed. Called the Kansas City Aeronauts Local No. 1, it began during the summer of 1910. The charter was composed by E. W. Harmon, said to be "one of the best all around balloon men in our city." Dues were sixty cents a month. Local bartenders raised the initial money to organize.

Harmon, when interviewed, said that balloonists get far less from promoters than the public suspects. He said most balloonists drive delivery wagons, handle freight and cook when they're not ballooning. "And on Sunday they go out and take a chance of killing themselves for the price of a pair of shoes."

The new union scale was to be $15 per ascension. "$10 for riders and $5 for groundmen and sparkers," said Harmon. The groundman dug the fire trench and rigged the balloon up so it could be inflated. A sparker was the "fireman" who kept the balloon from catching fire while it was being heated. He would throw water high up in the bag, wetting it down while it was hanging over the fire trench.



AS BALLOONING BECAME MORE POPULAR, the craft became standardized, with its own nomenclature and jargon. The balloon layout shown here is typical of the "sporting balloons" that found their way to fairs, early-day air shows, etc., and the highly regarded Gordon Bennett Cup races. (7)

THE KANSAS CITY INTERNATIONAL BALLOON RACE – 1911

The day was Thursday, October 5, 1911. Aviation day had come, climaxing Kansas City's 25th annual Priests of Pallas Carnival. On the aviation field at the foot of Holmes street, nine enormous bags of gas strained at their mooring ropes. In the wicker baskets, nine pairs of balloonists made last minute checks of provisions that included almost everything from champagne to overshoes. Then one by one, the balloons lifted into the chilly autumn sky and began drifting North. Brass bands played patriotic songs of three countries, and fifty thousand enthusiastic spectators cheered and waved their hats. The International Balloon Race had begun.

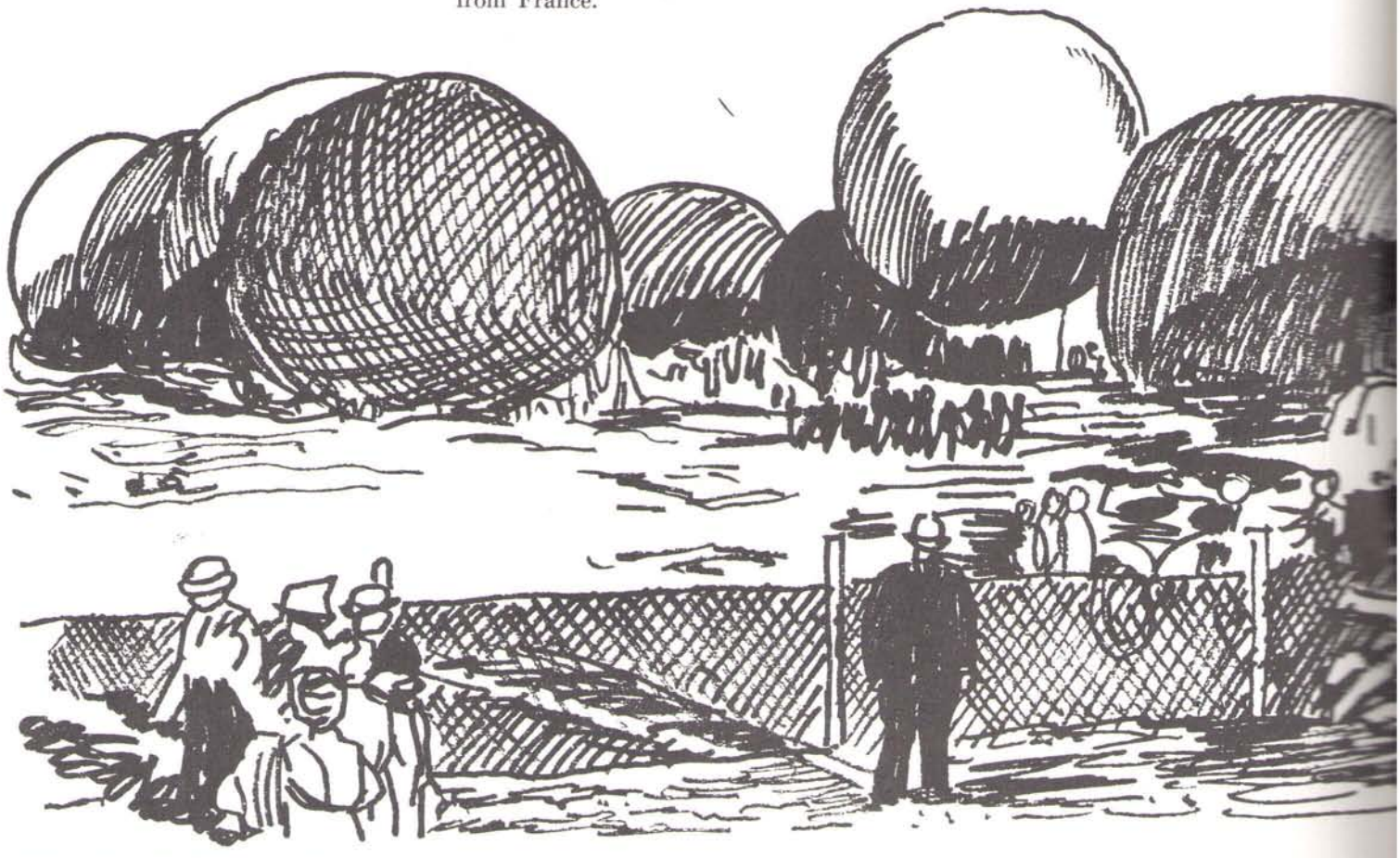
It was a contest of men and flimsy bags of gas against the uncertain and awesome caprices of nature. The winning balloon would be the one whose landing point measured the farthest distance from Kansas City. It didn't matter how many miles would have been covered, or how far the balloonist had to backtrack, at the mercy of the wind, before descending. At stake was the Gordon Bennett Cup, highest award for aeronautics. The Aero Club of America had won it twice in a row. A third win meant permanent possession. Cash prizes included $1500 for first, $1000 for second, and $500 for third, put up by the Kansas City Aero Club.

Representing the United States were the *America II*, *Million Population Club*, and the *Buckeye*. The first two were St. Louis entries. The *Buckeye*, from New York's Aero Club of America, was piloted by Lieut. F. P. Lahm, who had won the cup the year before. Foreign entries included the *Berlin I* and the *Berlin II* from Germany, and the *Condor III* from France.

This was also a distance test. To win this cup, a balloonist had to float more than 1173 miles, breaking the U.S. record set ten years earlier by Alan R. Hawley in the *America II*. Competing in the Lahm race were the *Topeka II* and the *Kansas City II*, representing their cities' aero clubs.

In addition to the eight competing balloons, a pilot balloon, the *Pennsylvania I*, would ascend ahead of the others to show wind conditions. It was piloted by Arthur T. Atherholt, president of the Aero Club of Pennsylvania. E. H. Hunnewell was his aide.

The rules of the Coupe Internationale des Aeronautes, under which the race was held, required that all balloons were to be rubberized (preventing the sudden escape of gas), and all were limited in size to 80,000 cubic feet. They were measured the morning of the race. If a balloon were to land in a river, lake or ocean, it would be disqualified if the pilot had



THE BALLOONS READY FOR THE START at the balloon field at the foot of Holmes St., the morning of October 5.

SPREADING THE BAG. Preparing to inflate one of the balloons. (All illustrations made from drawings in the Kansas City Star.)

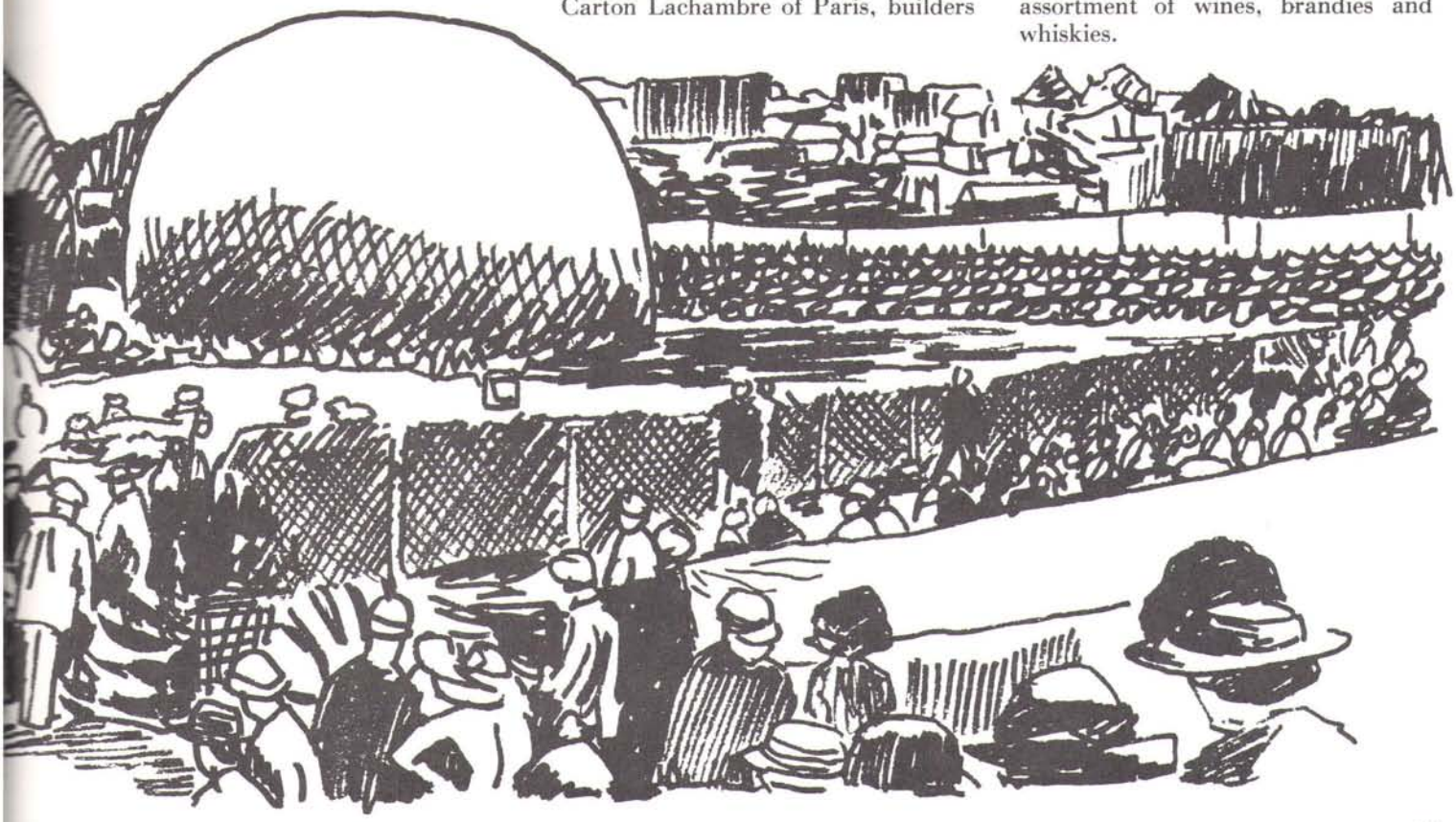
(9)

to be rescued. If he could "gain the shore and again mount, the balloon (could) proceed without penalty." The pilot was required to mark his landing place with a stake or a pile of stones, and make his statement before a notary public. On landing in a wilderness, he was required to secure affidavits of the men sent to rescue him.

France and Germany had invested much time and money to win the Cup. France's *Condor III* was piloted by Emile Dubonnet, 28, a member of the famous wine family and an amateur sports figure of some note in France. Dubonnet's father had died the year before, leaving him head of the largest wholesale wine business in France. His personal annual income was reported to be 3 million dollars. Dubonnet's aide was Pierre Dupont.

The basket of the French balloon was described as being "nearly as high as the ordinary man's chin, and of the finest weave of willow, lined with pockets like a traveling case." The bag itself was said to have cost more than $5000, and made of 1040 pieces of Japanese silk, stitched entirely by hand. It was built by the firm of Carton Lachambre of Paris, builders of Santos-Dumont's dirigibles and the ill-fated Andree balloon.

Germany was represented by the *Berlin I* and *Berlin II*. Lt. Leopold Vogt and Ober Lt. Hans Gericke were the pilots. Both men had aides. The German balloons were perhaps the best-provisioned. Supplies on the *Berlin II* included four dozen bananas, two dozen apples, two dozen pint bottles of beer, forty-two quart bottles of water and five more of distilled water, a quantity of sausage, and canned goods consisting of ham and chicken. Also, a Kansas City liquor house presented them with an assortment of wines, brandies and whiskies.



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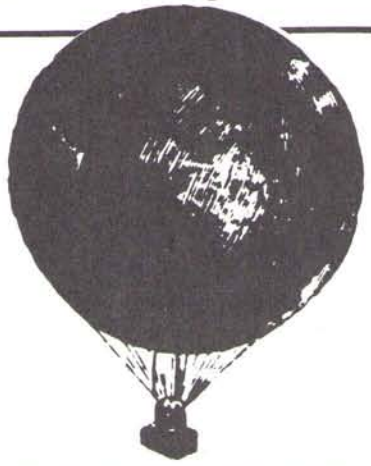
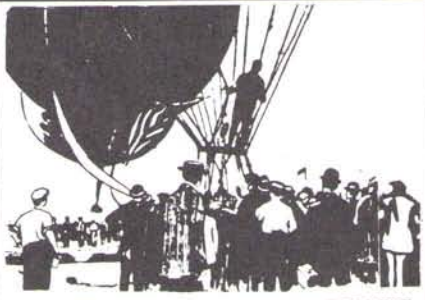
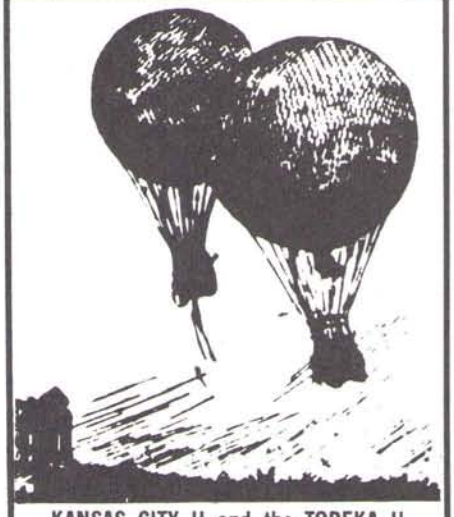
Lighter-Than-Air Days



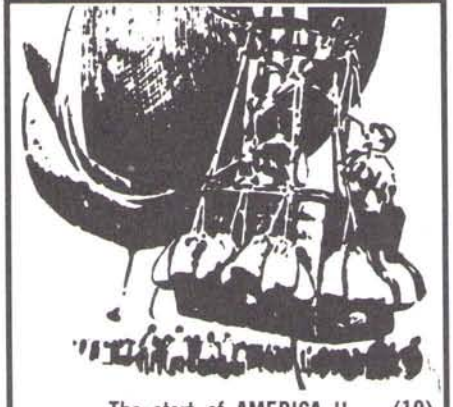
The MILLION POPULATION balloon



Lt. Lahm ready to go with the BUCKEYE



KANSAS CITY II and the TOPEKA II



The start of AMERICA II (10)

The balloons began ascending at 5:13 p.m. The *Pennsylvania I* lifted first, showering the spectators with sand ballast. It took a northwest course, silently moving across the river into Clay County. Next up was the *Condor II*, as the band struck up the Marsillaise. *America II* then lifted, piloted by William Assman. His assistant, J. C. Hulbert, was in the ropes above the basket waving an American flag. The crowd cheered. Next the *Berlin I* went up, as the band played "Die Wacht Am Rhine." The *Million Population Club* lifted off at 5:57, closely followed by the *Buckeye*. The *Berlin II* lifted at 6:10, also accompanied by "Die Wacht Am Rhine."

An incident marred the departure of the *Berlin II*. As the drag rope approached the river front, it was grabbed by a gang of boys, who threatened to pull the balloon down. Gericke had to dump three bags of sand ballast to get away.

Then the Lahm Cup entries lifted off. The *Kansas City II* rose into the dusk at 6:19, and a half minute later the *Topeka II* got away. The Kansas City balloon was silverized, and held a slightly higher position as they drifted in the direction the other balloons had gone.

THE FRENCH TEAM. Dubonnet (right) and his aide, Dupont. (11)

All the balloons were up now, floating silently and majestically, black outlines against the disappearing sun. The crowd in the stands and on the rooftops and hillsides watched the great procession of gasbags drift north and west into the darkening sky. Then the people departed for their homes, to await word of the balloonists' progress.

THE BERLIN II BALLOONISTS. Gericke (right) and his aide, F. O. Duncker. (12)

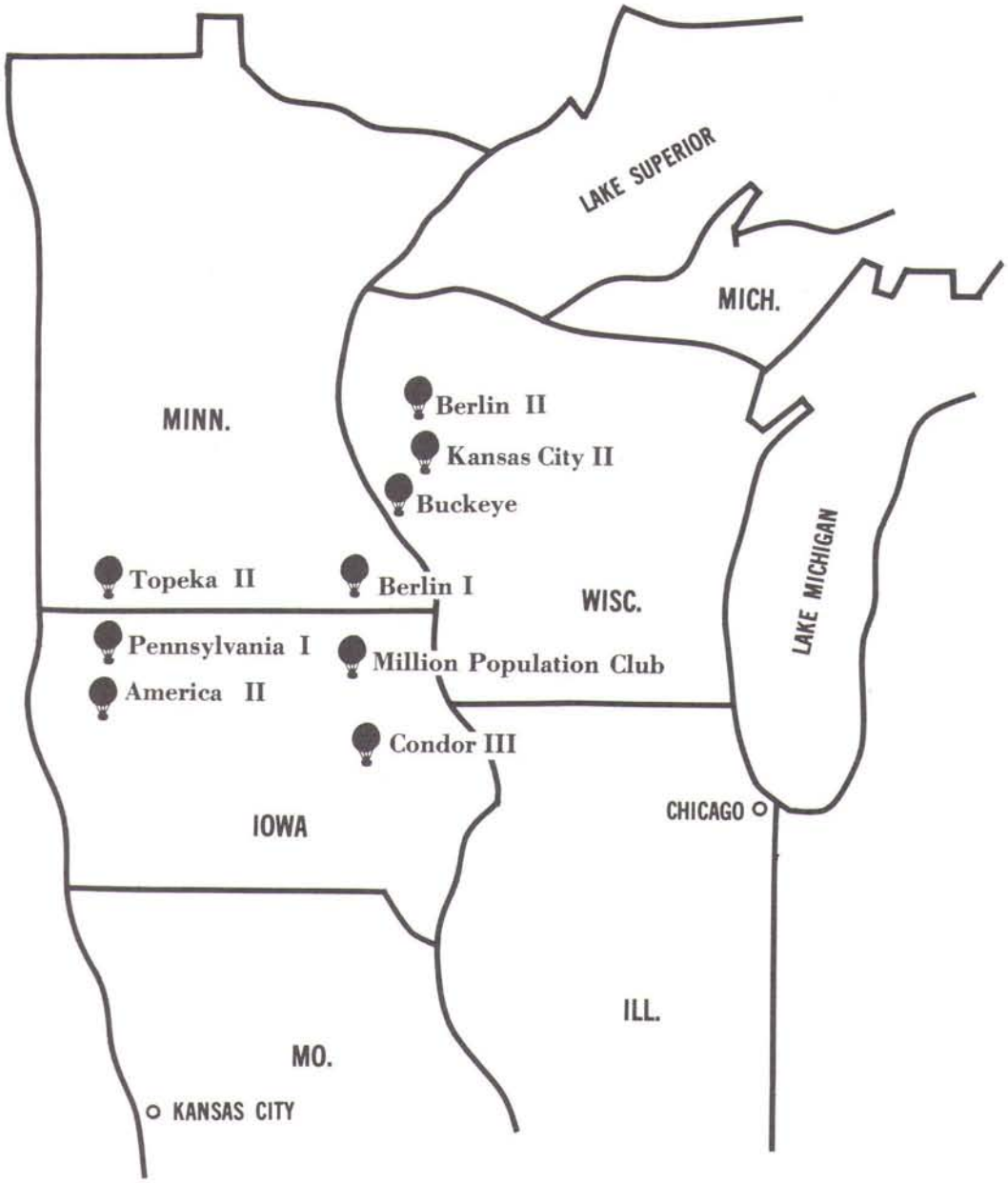
Nearing St. Joseph, Mo., Debonnet and his aide, Dupont, in the *Condor III*, finished a bottle of champagne and flung the empty bottle overboard. Looking down, they watched in horror as it plunged down, like a small bomb, to land in the rear seat of an open car being driven on a quiet street. They yelled their apologies in French to the astonished motorists, and disappeared across the Missouri River.

An Atchison, Kansas man awoke in the night, thinking burglars were trying to enter his home. After inspecting the entire house and finding nothing, he went back to bed. The next morning he discovered a bag of sand on his porch roof — ballast dropped from one of the balloons.

In Kansas City the next day, reports were slow to arrive, but news had been received of storms in the northern Midwest. Every telegraph operator in the north and along the southern border of Canada had been instructed to report to the Associated Press as soon as any of the balloons were sighted. The balloons were at the mercy of the wind. It was feared they would drift over the border into Canada, which was sparsely populated and isolated north of the Canadian Pacific Railway. If a balloonist would descend into the Canadian wilderness as far as 200 miles north of the railway line his chances of ever getting out would be slim.

THE KANSAS CITY WEATHER OFFICE issued this map, showing probable course of the balloons. (13)

WHERE THE BALLOONS WENT DOWN (14)



Friday afternoon, (the day following the ascension) word came in that four balloons and their occupants were safe. They were the *Buckeye*, *Berlin I*, *Topeka II* and *America II*. Farthest from Kansas City at this point was the *Buckeye*, at 370 miles, near LaCross, Wisconsin. Reports from all of the balloon pilots indicated they had experienced a severe storm, which beat them down, nearly froze them, and drove them back south to make landings at inferior positions. The *Million Population Club* came down in a strong wind. Capt. Berry, its pilot, managed to alight to earth, but didn't succeed in deflating the balloon, and it was carried halfway across the state of Iowa and into Illinois, unroofing at least one barn with its anchor. A wind shift could have carried it all the way back to Kansas City. The St. Louis balloon accounted for all the entrants but one, the *Berlin II*.

On Sunday, October 8, the Kansas City Aero Club received a telegram from Ladysmith, Wisconsin, 470 miles from Kansas City. It was 2:30 a.m. Gericke and his aide were alive and well. After 37 hours in the air, they had landed near Ladysmith Saturday morning, and it had taken them nearly seventeen hours to walk out of the wilderness.

So the Gordon Bennett Cup went to the Germans, and the world turned to other business, including preparations for the World War. But for years, people would remember the awesome sight of the magnificent gas bags, and Kansas City's International Balloon Race.

Early Flights

CHARLES K. HAMILTON AT OVERLAND PARK

BANKING SHARPLY, Hamilton thrills the crowd at the aviation field as he comes in for a landing. (15)

Kansas Citians saw their first airplane in flight in 1909, when Charles K. Hamilton put on a flying exhibition in Overland Park, Kansas. W. B. Strang, of the Strang Electric Line, an interurban trolley, make an agreement with Hamilton to perform in Kansas City, after the aviator had asked for $1000 a day from the Priests of Pallas association. It was not disclosed what Strang, representing the Overland Park Athletic Club, had to pay.

Hamilton was a member of the newly organized Curtiss exhibition team. He was flying the same biplane "racer" that Curtiss had flown to win the Gordon Bennett Cup at Rheims, France earlier in the year. Hamilton had just finished making exhibition flights at St. Joseph, Mo,. which were the first to be made west of the Mississippi River with a heavier-than-air machine. The plane he was flying was a pusher biplane, with a wingspan of 26 feet. It had a front-mounted elevator and mid-wing ailerons. (Both of these features would soon be modified, the front-elevator being moved to the tail, and the mid-wing ailerons being repositioned in the wings. This airplane was the predecessor of the outstanding Curtiss biplanes to follow. It would take more honors at America's first air meet the following year at Los Angeles.) The engine, built by Curtiss was back of the pilot's seat. It weighed 85 pounds and developed 26 hp. The wings had bamboo ribs. The fabric was rubberized silk.

The airplane was shipped from St. Joseph December 21. A large crowd came out from Kansas City, many of them on Strang's interurban trolley, which made extra runs to accommodate the extra passengers. Tickets were on sale at hotels, cigar stores and garages. Signals were displayed downtown to advise the public as to the probability of the flights. A red flag indicated attempts; a white flag advised that the weather or other conditions made flying questionable.

At 4:57 in afternoon of December 24, Hamilton shouted "Let 'er go," and the men who had been holding the biplane released their grips. The machine raced about 300 yards, down a stretch where snow had been

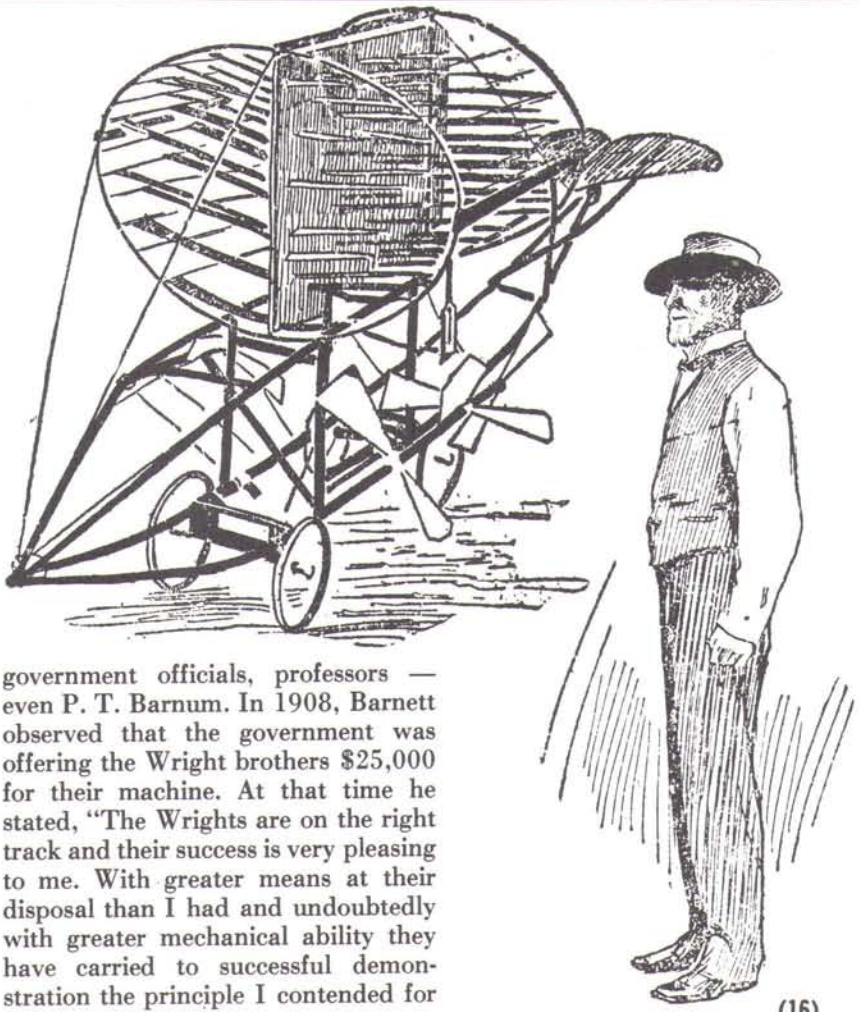
Continued on page 14

THE AVIATION FIELD AT OVERLAND PARK. This was the south field, between what is now 79th and Floyd, about a block west of Metcalf. The large

AN EARLY DESIGN

There lived a man in Kansas City with a vision of flight far ahead of its time. In October, 1897, *The Star* printed a description with cuts of a primitive airplane designed by Frank Barnett, of Kansas City. The airplane, although not assuming the same configuration as the Wright Flyer to appear six years later on the sands of Kitty Hawk, nevertheless embodied aerodynamic principles that could have led to a flying machine, had a practical lightweight engine been available. Supported by a light framework on a wheeled undercarriage, a large vertical vane was positioned in the center of the machine. Out from this rectangular vane, a series of airfoils projected, connected to supporting struts. There was a small horizontal tail surface. Two propellers on each side of the machine were to propel the ship, which had no apparent source of power, and no controls.

As early as 1870, Barnett made his work known. At the Iowa State Fair in Keokuk, he exhibited "tomatoes, cabbage, onions and a 'machine for mechanical flight.' " After that came rebukes from various men: scientists, government officials, professors — even P. T. Barnum. In 1908, Barnett observed that the government was offering the Wright brothers $25,000 for their machine. At that time he stated, "The Wrights are on the right track and their success is very pleasing to me. With greater means at their disposal than I had and undoubtedly with greater mechanical ability they have carried to successful demonstration the principle I contended for forty years ago."



(16)

uilding in the center is the pavillion, used as a dance hall, and later by W. B. Strang to make motion pictures — the first in Kansas City. (17)

Early Flights

removed, and rose gracefully. It was on a gradual rise when a skid at the back struck a post. The plane floated about fifty yards and landed in a field. Undaunted, Hamilton had his mechanic attend to the broken skid, and the next morning resumed the exhibition. Eager spectators were "startled by flights which took the machine beyond the treetops." They were amazed that Hamilton was able to fly in a stiff wind, and they were awed by the circles and figure eights that he performed in the chill December air.

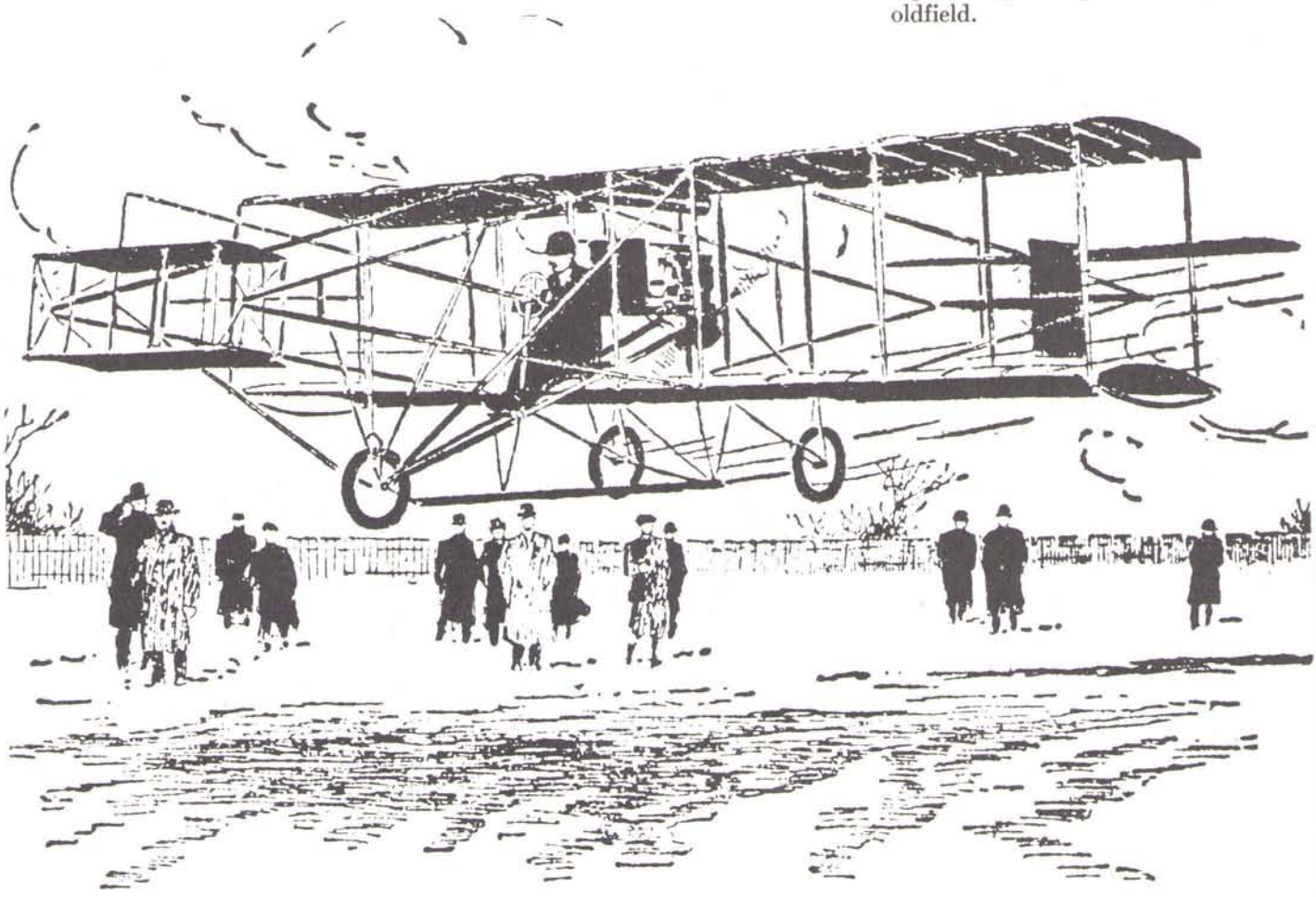
During the week, repairs had to be made constantly on the *Rheims Racer*. Skids, stays, guy wires, balance planes and propellers broke with agonizing regularity. Hamilton's mechanic repaired the plane after each flight. As soon as the damage was fixed, Hamilton would be off on another flight.

On December 31 Hamilton made a continuous flight of 18 miles, cruising for more than a mile at a height of 500 feet. It was the best performance by an American aviator to date. But unfortunately, Hamilton had not been granted a pilot's license by the Aero Club of America, and the record was unofficial.

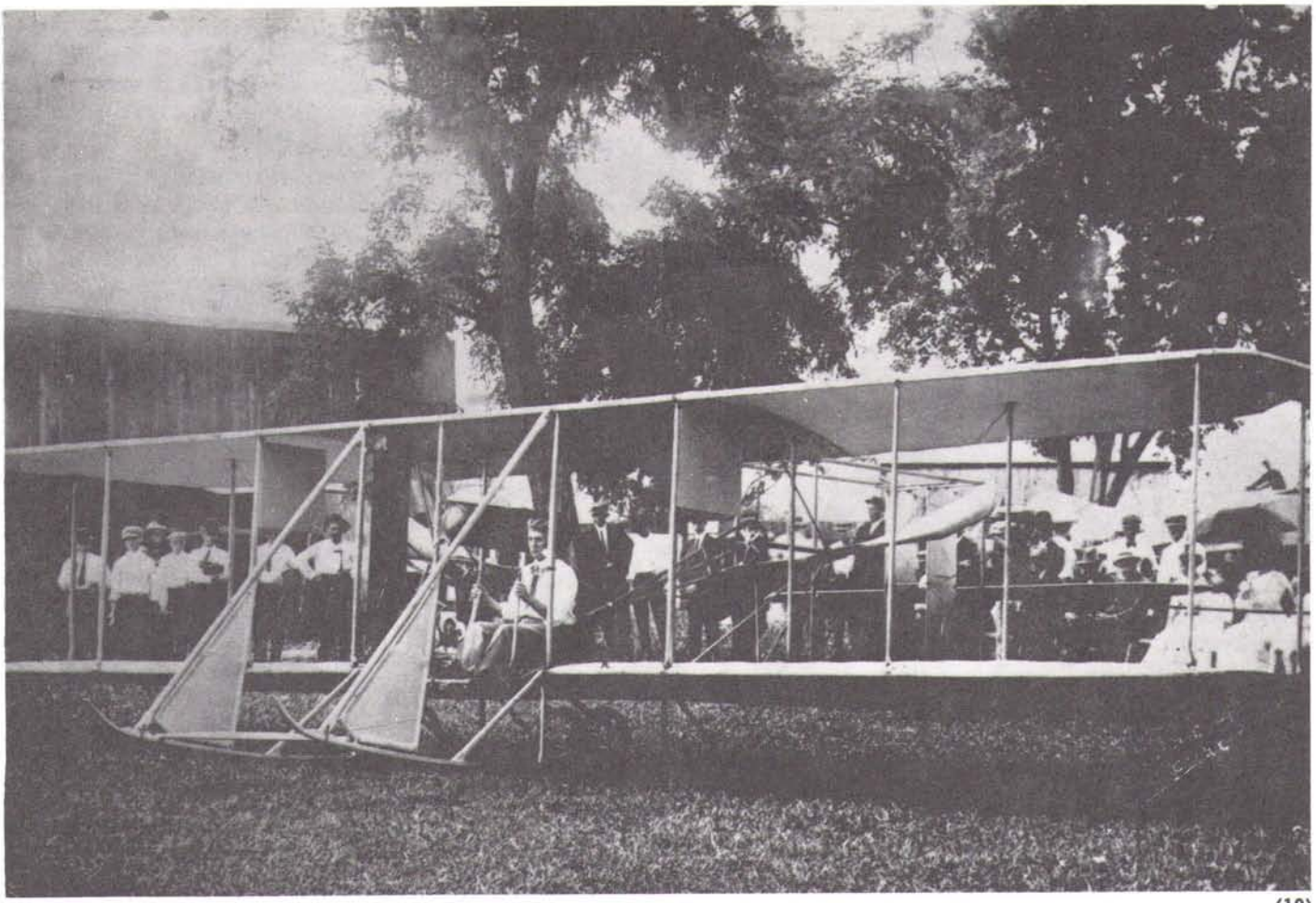
A broken cylinder put the engine out of commission January 1, and the exhibition flights came to an end. But history had been made in Kansas City, and its people had been introduced to a new and wonderful invention: the airplane.

George Breyfogle, an Overland Park realtor, remembers the early aerial exhibits. "There were two aviation fields," recalls Breyfogle. "One extended from 82nd to 87th, between what is now Robinson Street on the west and Hamilton Street to the east. The other field lay to the south, between 79th and Floyd, about a block west of Metcalf. Strang began the interurban line about 1904. It ran as far as 42nd and State Line. During the aerial exhibitions, extra cars had to be put on to accommodate the crowds, sometimes numbering 10,000. My father worked with Strang. I remember going to the early meets. Some friends and I sometimes made up a barrel of lemonade and sold it to the crowd. A man put together a flying machine in the pavillion at the south field. It was a biplane with the propeller in front, as I remember. The wings had overlapping "feathers" like a bird's wing -- made of isinglass. I recall the test flight. The pilot -- I don't remember his name -- got off the ground with his machine, but a wing dropped, and he crashed into a tree. He wasn't hurt, but the airplane was a total wreck."

The Overland Park field was visited by many noted fliers, including De Lloyd Thompson, who made exhibition flights before World War I. One of his specialties was racing his biplane against prominant race-car oldfield.



FLYING AT OVERLAND PARK IN 1909. Later a broken cylinder ended the exhibitions. (18)



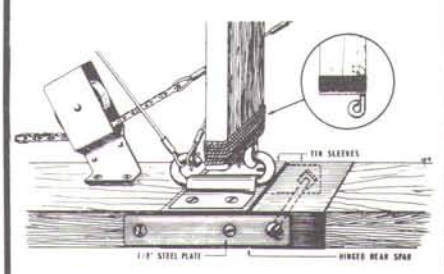
ROBERT FOWLER and his Wright biplane at Overland Park. (19)

CROSS-COUNTRY PILOTS VISIT KANSAS CITY

In mid-October, 1911, Calbraith Perry Rodgers visited Kansas City. He had flown a modified Wright B biplane from Sheepshead Bay, Long Island. Already having broken the U.S. cross-country distance record for aviators, he was on his way to becoming the first man to cross the nation by air. He landed in Blue Springs. They warned him of the "dangerous air currents" over Kansas City, especially the industrial districts and the area over the river bluffs. But Cal was anxious to "see the town," so he took off in his much-repaired "Vin Fiz" and not only saw the town, but gave what was described as a "dazzling aerobatic performance" for the citizenry.

Flying a similar aircraft, Robert Grant Fowler left Los Angeles and flew to Jacksonville, Florida, arriving some three months after Rodgers had completed his flight, but accomplishing what even Orville Wright said couldn't be done in a Wright plane. On July 4, 1912, five months after completing his flight, Fowler visited Overland Park with his plane.

CAL RODGERS (20)



1911 STRUT FITTINGS. (21)

Early Flights

J. C. McCALLUM

The first successful airplane "made in Kansas City" was a tractor biplane designed, built and flown by J. C. McCallum of Overland Park, Kansas. McCallum's first flight in the Farman-like craft occurred in August, 1910, and he reached a height of 30 to 35 feet and flew about a quarter of a mile. Later in the week a flight of three-quarters of a mile was made.

First tests of the craft, powered by a 70-hp engine, were made in secret in the middle of a large Kansas wheat field. When the biplane had demonstrated its ability to fly, it was moved to Overland Park, where the successful flights were made in August.

Besides its tractor propeller arrangement, the McCallum aircraft differed from the Farman and Curtiss biplanes in that the entire wing could be tilted to change the angle of incidence in a turn. Ailerons were also incorporated in a manner similar to the Curtiss arrangement. It was reported that the tilting wing enabled the biplane to execute tighter turns with less roll, thereby producing a more stable and more maneuverable machine.

HORACE KEARNY

One of the first monoplanes in Kansas City was the Pfitzner, flown by Horace Kearny. A student at Manual Training High School two years, Kearny designed and cast all the parts of a motorcycle engine, and put up a wireless telegraph apparatus. In 1905, Kearny enlisted in the U.S. Navy as an apprentice electrician. In 1909 he helped build the Pfitzner monoplane and in 1910 exhibited the ship at the Boston Aviation Meet in Atlantic City, N.J.

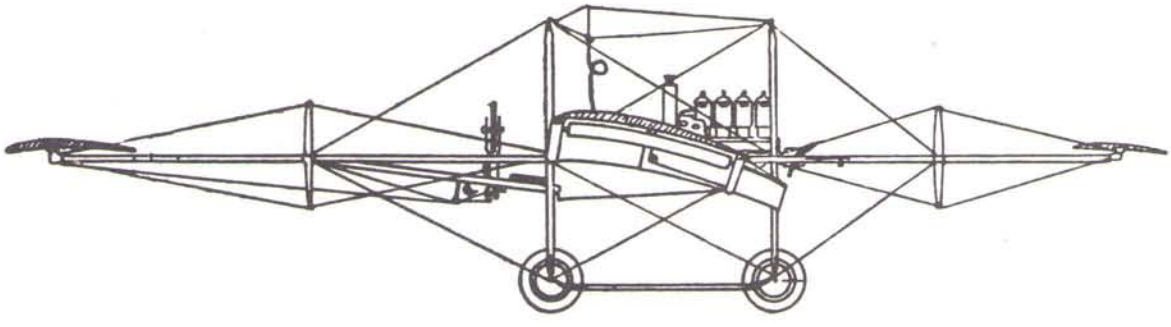
HORACE KEARNY

Reports from the meet indicated the plane was never flown. Kearny ran the monoplane along the ground, gathering speed for takeoff, and the wheels struck a soft spot. The plane mired in the dirt, breaking 3 or 4 supporting wires. Kearny immediately began to repair the damage, remarking that flying conditions were ideal.

J. C. (Bud) MARS

Hoping to win a $5,000 prize raised by W. B. Strang for a cross-country flight between Topeka and Overland Park in June, 1910, J. C. (Bud) Mars battled rough air and a sputtering engine in his Curtiss pusher, but got only as far as Lawrence. There he attempted to repair the crippled engine, and his mechanics worked over it until 3 a.m. before declaring it fixed.

Early the next day, Mars tried to beat rough air, and wheeled out his machine at dawn. But a valve was broken. A local machine shop was summoned, but repairs would have to wait until noon, and Mars was due for exhibitions in Louisville, Kentucky. With regret, he crated the airplane and left Lawrence, having failed to achieve his goal.



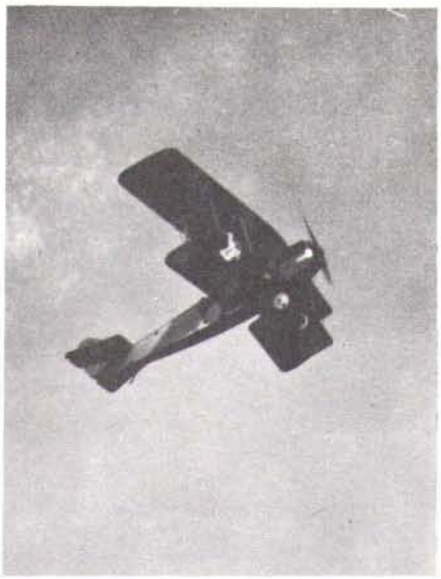
PFITZNER MONOPLANE achieved flight, but was never a complete success. (22)

Builders & Barnstormers

EARL REED and homebuilt. (23)

ALBERT and EARL C. REED

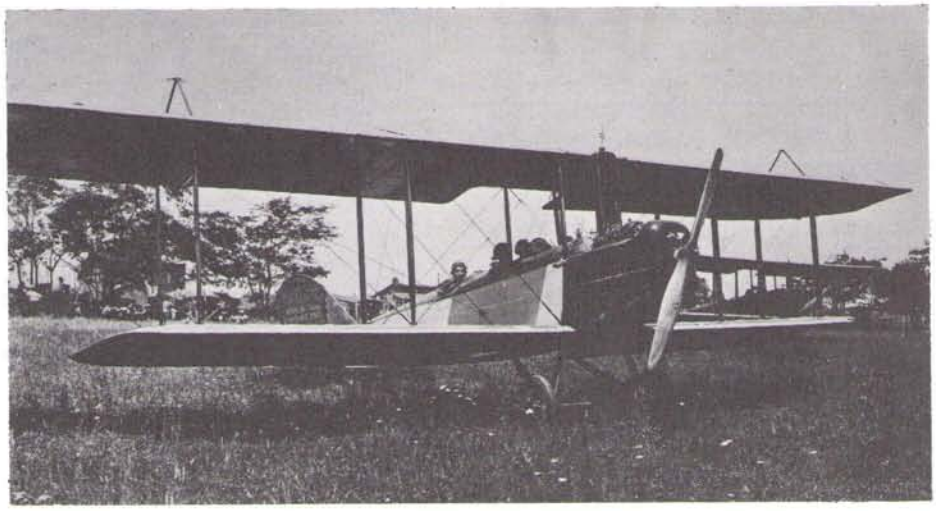
Albert Reed opened Kansas City's first public airport in 1917. It was on a hilltop outside Marlborough, a suburb of Kansas City. The land was leased from Ernest Kellerstrass, and it became known as Kellerstrass Field. Reed's brother-in-law, Blaine Tuxhorn, had been putting together an airplane from pieces of junk scrounged from Air Service dumps. By mid-summer he had assembled something that passed for a biplane, and flew it from Kellerstrass. Albert bought a surplus *Standard* the following year.



TEX LaGRONE flies Standard as Gerald Wiley hangs from lower wing. (24)

Earl was just a little fellow at the time, but he remembers going up with his dad in the *Standard*, and getting his first taste of flying. "I sat on my father's lap and worked the control

BAHL "LARK" was made in 1926 from Jenny, Thomas-Morse parts, inspired Dewey Bonebrake to design Inland Sport prototype. Blaine Tuxhorn owned plane, which didn't fly well. (25)

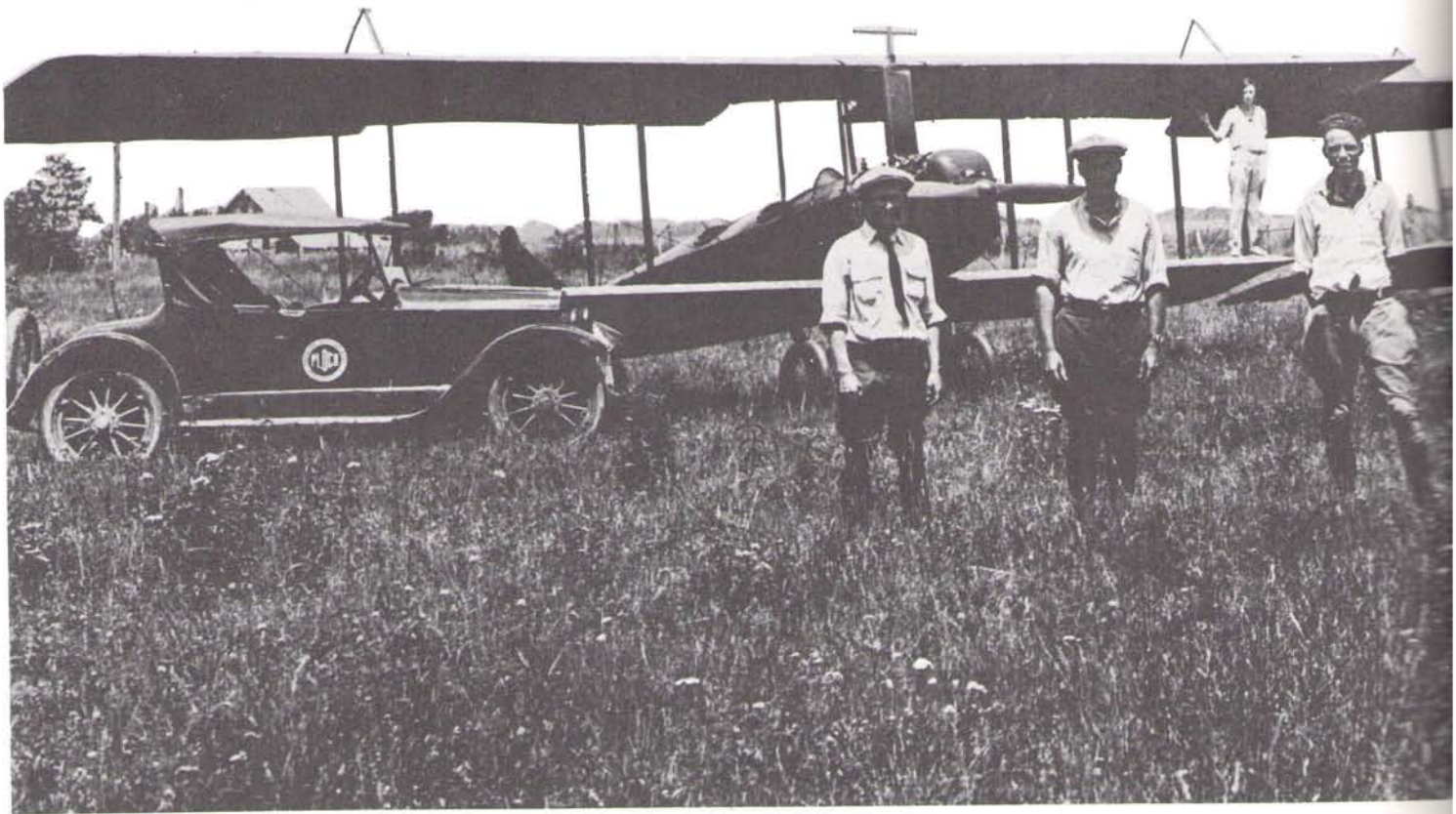


STANDARD biplane was "workhorse" of many early barnstormers. McCrum bought his from Nicholas-Beazley Company in Marshall, Mo. **(26)**

stick. My feet weren't long enough to reach the rudder bar, so Dad operated the rudder while I worked the throttle and stick."

Tex LaGrone, recently discharged from the Air Service, persuaded Albert to hit the barnstorming trail with him. They formed the T-L-R Flying Circus (Tex LaGrone and Reed) and began a 4,500-mile tour which included Kansas, New Mexico and Oklahoma. Farmers and ranchers paid well for 10-minute flights, and the tour was a success. In Oklahoma they ran into the Texas Top Notch Flyers, headed by barnstormer Burrell Tibbs and a parachute jumper by the name of Wiley Post. In Nebraska the following year, their trail crossed that of "Cupid" Lynch and his wingwalker-parachutist, "Slim" Lindbergh.

Flying in New Mexico, LaGrone's *Canuck* developed a fouled spark plug and the old crate began to lose power over rough terrain. Gerald Wiley, their wingwalker-parachutist, earned his reputation as a cool performer by grabbing a spark-plug wrench, climbing out of the front cockpit and bracing a foot on the flying wire that ran to the cowl, and



EARLY BARNSTORMING GROUP. R. T. McCrum's Flying Circus included his stepdaughter, Esther, who was the wingwalker at 14.

changing the fouled plug. Earl, flying with his dad in the *Standard*, remembers the *Canuck* recovering with several hundred feet of altitude to spare, and climbing back up with the *Standard*. "Tex and Gerald were all smiles," recalls Reed.

Another member of the Circus during the early days was Beeler Blevins, a skillful pilot and equally skillful "ladies man." Blevins often flew in a condition best described as "recuperative," but in spite of his romantic diversions and late-night revelling, Beeler flew well and his likeable personality carried him through. One incident occurred, however, that nearly cost him his job as pilot.

Beeler returned to the pasture, bleary-eyed from a night of adventure in town. It was nearly noon, and Albert was anxious to get going. He asked Beeler to climb in the cockpit and handle the ignition witch while he pulled the prop through on the *Standard*. Albert yelled "Switch off!" and Beeler yelled "Switch off!" in return, as Earl's dad pulled the prop through. Then he shouted "Switch on!" Beeler replied wearily. Albert gave a mighty heave on the prop, and then a few more, but nothing happened. Then he yelled "Switch off!" and prepared to pull the prop again to draw more gas in the cylinders. "Switch off," yawned Blevins, and Albert pulled. With a roar, the Hisso exploded to life, and the prop caught Albert a glancing blow as he leaped away. Nursing a reddening welt on his arm, Albert rushed back to the cockpit. Blevins, full of apologies, explained that he had been flicking the ignition witch with the toe of his shoe. On the last "switch off" the toe had failed to do its job. Blevins was a little less casual after that.

Earl, filled with awe at the wondrous events happening about him, served his apprenticeship with the barnstorming troupe, servicing the planes, selling tickets and occasionally washing down a cockpit (and occupant) when the customer lost his lunch. He remembers the first couple of years, when the standard fare for a flight was $20, with $5 extra for "flip-flops," as their limited aerobatics were often described. Schools and downtown businesses would close for the afternoon when the "circus" was in town. Sponsoring groups paid as much as $150 for an aerial routine of loops, barrel-rolls, death zooms, and the like. For a little extra money, Gerald would hang by his knees from a wing-skid and do a parachute jump.

They would follow the harvest — and the money — flying north throughout the great prairie-lands, dodging prairie-dog holes and 'bob-wire' fences and '$500 cows' that every farmer owned if you hit one. But the money began dropping off, and the $20 fare became $15, then $10, then $5, and finally $1.50. The "penny a pound" hop was invented.

TEX LaGRONE and his wife at the 1921 American Legion Air Meet. (28)

TEX LaGRONE

John Kerr LaGrone, once called "Kansas City's oldest flying institution," was born April 21, 1891, in Okalona, Mississippi. For a while, the family lived in Texas. In 1906, they moved to Chico, California. His schoolmates in Chico considered him a Texan, and gave him his nickname. Three years later, Tex and a friend began a motorcycle odyssey which carried them to Los Angeles where Tex found work in a drug store. It was at America's first air meet, held in Los Angeles in 1910, that Tex got his first close look at airplanes. And he was bitten hard by the flying bug. The next year, at a larger meet, Phil Parmalee, a member of the Wright exhibition team, took Tex for a ride in the fragile pusher. Tex paid for his ride by helping keep the Wright plane clean and watered, like a circus elephant. It was the beginning of a long and intimate association with airplanes.

The next year, one of the planes crashed at the Los Angeles meet, killing the pilot. Tex sold his motorcycle, and together with two other men, bought the remains of the "crate." They fixed it up, and after a few weeks of taxiing back and forth, all three could get the old plane a few feet off the ground, turn to the left and land again. Thus, Tex LaGrone taught himself to fly.

Tex did stunt work in Hollywood in the early days of films. His plane was used as a background for bathing beauty shots. He worked for a time with Warner, whose Pathe newsreels featured Tex in aerial stunts.

Trouble was brewing between the U.S. and Mexico and Tex, earning a living as a flight instructor in California, became an instructor for the army. He tried to enlist during World War I, but the army valued him more for his civilian flight instructing, and LaGrone lived up to his

nickname, teaching flying in Texas.

After the war, Tex barnstormed across the midwest in a Jenny, one of the large band of barnstormers to enjoy the "feast and famine" of the trade. During this period of his life he became acquainted with a tall pilot they called "Slim." Soon the lanky aviator would distinguish himself with a daring solo flight across the Atlantic. Now Charles Lindbergh was just another barnstormer who specialized in parachute jumps from a *Lincoln-Standard.* He would make as many as 125 hops at state fairs in a couple of days.

TEX AND SLIM. Lindbergh in one of Tex's Waco biplanes. **(29)**

In 1919, LaGrone met Dr. John H. Outland, a prominent Kansas City physician. This proved to be a turning point in Tex's career. The doctor was Kansas City's first plane owner, and he needed a pilot. Texai was his man. Together they raced from town to town on mercy missions throughout the midwest. Tex became Kansas City's No. 1 pilot. His flying brought its lighter moments, although at the time some of them didn't seem so funny. There was the time Tex was hired to fly his plane for an aerial photographer. The engine failed, and Tex made an emergency landing in a pasture on the R. A. Long horse farm. He tied the plane to a fence and walked back to town. The next morning, Tex went back to get his plane and discovered Long's horses had eaten all the fabric off the aircraft. "There was a salty taste to the fabric," Tex recalled, "and I lost several planes left in pastures because hogs, cattle, mules and horses discovered airplanes were a tasty delicacy."

Woolf Brothers clothing store became the first business firm to own a company plane in Kansas City. In 1922 they purchased an airplane and hired Tex to take Herbert M. Woolf on business flights.

Also in 1922, Tex became the first distributor for Waco aircraft. For 20 years the company advertised that

TEX LAGRONE taking off in a Waco at Richards Field. (30)

Tex LaGrone, their first distributor, was still selling Wacos. In fact, he often ordered them from the Troy, Ohio firm by the carload. In addition to aircraft sales, LaGrone rented hangar space and sold gas and oil at Fairfax airport in Kansas City, Kansas. In 1928, LaGrone owned one of the 12 aircraft at Fairfax.

Throughout much of his Kansas City flying career, Tex delivered copies of the *Kansas City Star* to the Homecoming football games at Lawrence and Columbia, working as a charter operator for the *Star*. His annual flights became as great an institution as the games themselves. He also dispatched photos of the games by air.

In 1942, LaGrone turned his aviation operation over to Charles Toth, another Kansas City flying veteran, and began testing B-25's for North American Aviation at Fairfax. It was a new experience for Tex, who was working for an employer for the first time since 1919.

Tex LaGrone died April 12, 1953 at his home in Kansas City. His aviation career was perhaps best summed up by his friend, Charles Lindbergh, who remarked, "Tex flew since 1911 and got a kick out of every minute of it."

CLARENCE MELTON

Mechanic, inventor, pilot, airline executive and ingenious "home-builder," Clarence Melton has been a colorful composite. He was born in 1896, some 100 miles southeast of Kansas City, in the Ozark foothills at Rockville. An interest in aviation came early to young Clarence as his grandfather read aloud accounts of the Wright brothers and their flights.

At age 12, Clarence constructed a wing with a hole in the center so he could fly around the family farm. The wing span was 12 feet. From atop the barn he sailed, making an abrupt landing seconds later in the barn lot.

KATYDID was first, completed in Lakeville in 1918. (31)

SIDE VIEW is less flattering. Aircraft was all wood construction. (32)

AIRFRAME view shows square fuselage, primitive engine. (33)

MELTON AND WIFE atop completed plane. Only hop-flights were made. (34)

MELTON'S SISTER, ORBA, sewed fabric on wings of No. 1. (35)

He wasn't hurt. In 1910, Melton saw his first real airplane at the Missouri State Fair in Sedalia. It was a Curtiss, flown by Louis Gertson.

Clarence had been thinking about building his own "home-built" for some time. Seeing Gertson fly around the fairgrounds clinched it. He began construction of Model No. 1 in 1916. It was a boxy little contraption, made of pine, spruce, wire and milled cotton. Melton built it in a shed on the farm, using simple tools: a hand drill and 3 bits, a hammer, tin snips, a hand saw, pliers, a long needle, and a crescent wrench. From Heath, a Chicago airplane mail-order firm, he ordered an engine, consisting of four motorcycle cylinders (originally built by Glenn Curtiss) arranged in line on an aluminum block. It cost young Melton $150 and developed an estimated 20-25 hp.

The plane had a wing-span of 20 feet and weighed about 500 pounds. Landing wheels were from a motorcycle. Friends christened Melton's creation the "Katydid." A neighbor, George Newell, let him use his cow pasture, which was larger and smoother than the Melton acreage. (Melton asked the author to express his thanks to Newell, somewhat belatedly, for this favor.)

Melton's idea of steering was based on a bobsled, and he hooked up his rudder accordingly, which was all wrong for an airplane. To go right, he pushed the left rudder. To go left, he pushed the right.

His next problem was learning to fly. Few persons in the Ozark region had ever seen an airplane close up, let alone fly one. Melton decided on a do-it-yourself training program. He taxied the plane all over the farm, making short hop-flights now and then when the plane hit a bump. As an experiment, Melton even tried fitting a single wing to the plane, substituting wing-warping for ailerons. But the engine tended to overheat and lose power.

Melton moved to Kansas City about this time, working as automotive mechanic to support himself and his wife, Ruth. But the aviation bug had bitten, and Clarence was determined to build another airplane at his home at 3507 E. 34th St. in Kansas City. This time, he decided on a Model T Ford engine of 1913 vintage. Installing the engine upright, Melton removed the flywheel flange. A block of wood was inserted between the bolts to strengthen the arrangement and dampen vibration. The bolts and block were inserted through a hole in the radiator, and a six-foot propeller was attached. There was no propeller shaft, as such.

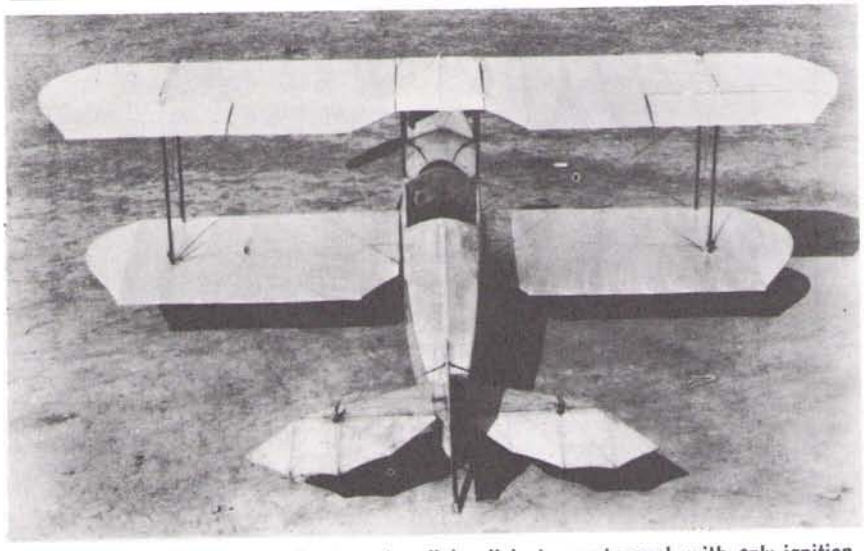
Using larger wheels, and cutting non-essential weight according to rigid stress tolerances, (the plane weighed 475 pounds) Melton created a more sophisticated airplane. The "bobsled" rudder arrangement was retained, however. The "instrument panel" was a study in simplicity, with only an ignition switch and an oil pressure gauge. This second airplane, completed in 1923, was christened the *Houpisine*, a contraction of *Houpie* (slang for Model T) and *limousine*. A Kansas City product, it was also known as the "K. C. Special."

Melton's brother-in-law, Vernon Ferguson, also a mechanic, helped with the *Houpisine* project. The fabric was sewn by Orba, Clarence's sister (Vernon's wife). The material was Fly-Tex, a milled cotton. Nearly a half-century later, the rudder fabric is still tight and shows no ring when snapped.

Clarence and Vernon served as mechanics at the first annual American Legion aviation meet held at Legion Field. (See the Racing Section for an account of the third meet.) While there, they met a returning Army Air Corps pilot, J. K. "Tex" LaGrone. Melton later asked LaGrone if he would flight-test the *Houpisine*. LaGrone agreed. Clarence and Vernon towed the plane to the Legion Field and LaGrone looked it over. Then he climbed into the single cockpit, had the Model T engine started, and began taxiing across the field. About half-way across he stopped, and cut the engine. "What's with the rudder?" he yelled. Melton explained his bobsled rudder arrangement as LaGrone stared at the *Houpisine* in amazement. "Can you cross the wires?" LaGrone asked. There was enough extra cable, and soon Melton had the rudder control reversed. Tex climbed back in and took off, flying around the field at a height of about 1,000 feet. The Air Corps pilot was impressed. Melton was delighted. But he still couldn't fly.

KATYDID AS A MONOPLANE. Melton tested his bird as a wing-warper, without much success. (36)

THE HOUPISINE



REAR VIEW shows scalloped elevator edges, "clean" instrument panel, with only ignition switch and oil pressure gauge. Original rudder fabric still checks out. (37)

THE BUILDER poses proudly by his bird. Propeller was attached to crankshaft by four bolts – there was no propeller shaft. (38)

MACHINE SHOP ADVERTISING helped pay for gas and oil. (39)

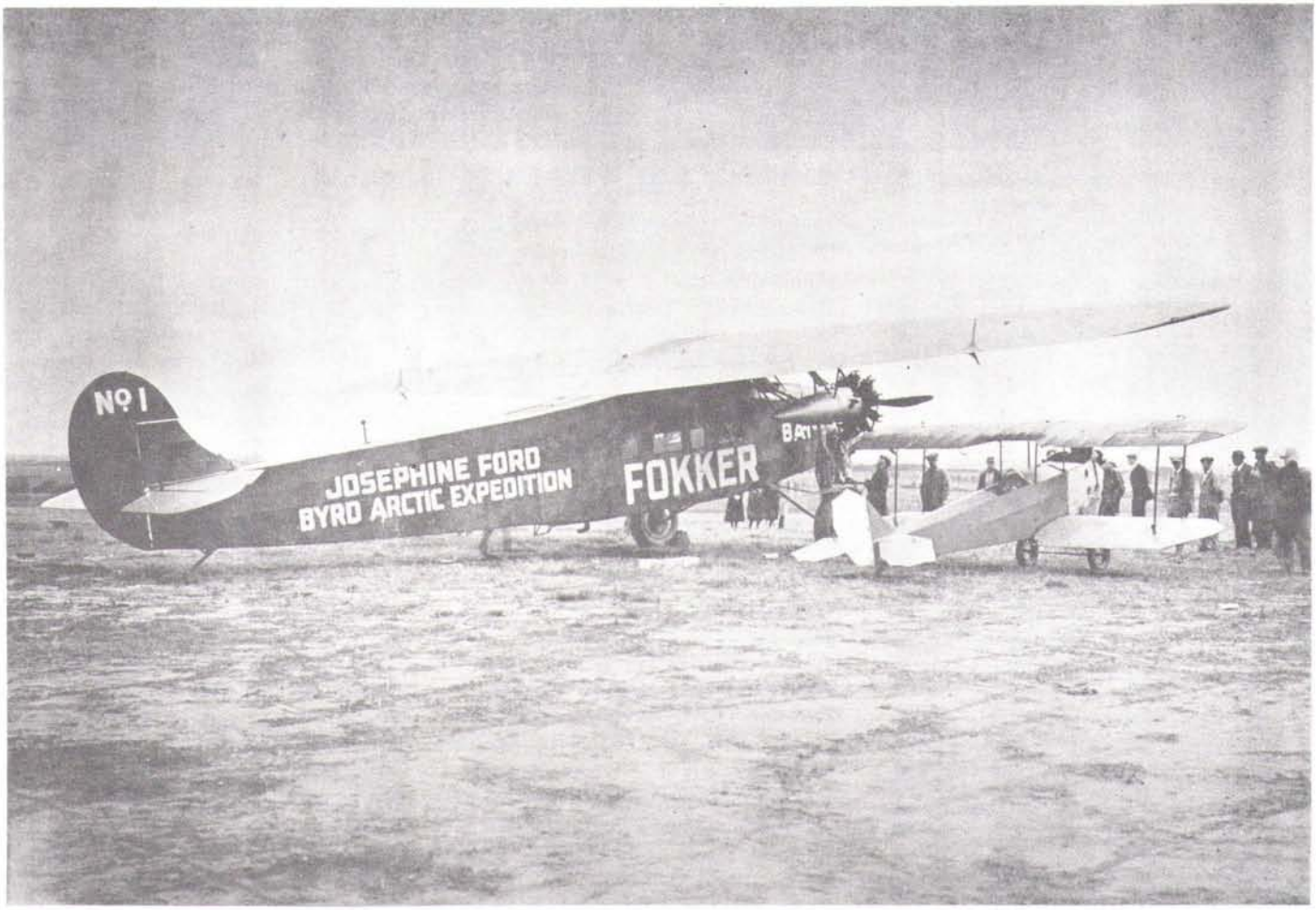
So the next few weeks were spent taxiing back and forth, back and forth, re-learning the new rudder arrangement, and mastering the ground-handling qualities of the *Houpisine*. Later, Melton took his plane to Richards Field and tried some straight-ahead flights. He would taxi at high speed, pull the stick back a little, and get airborne — no more than four or five feet — then cut power. The plane would settle to earth. He did this until one day he landed too fast, and hit a ditch at the end of the field, wrecking the landing gear. He repaired the gear, but decided he'd better get professional help if he wanted to learn to fly. His best straight-away flight had been "about 100 feet" at Legion Field.

Blaine Tuxhorn was instructing and hopping rides in his *Lincoln-Standard*. Melton went up on a windy day, and they practiced landings. Eventually Tuxhorn told him, "Clarence, if you can make landings this good in this crate in a gusty wind like this, you can take that crate of yours up and around any time you get ready."

Melton was ready the next morning. "I got up at 5 o'clock," he said. "The temperature was 6 below. I went out to Richards Field and warmed up the engine with a blow-torch. Then I started the *Houpisine*, and got into the air before 6 a.m. I went up and around for 20 minutes, and then came in for a successful landing." Melton remembered that no one was with him at the field. "I didn't want anyone to see me in case I looked bad," he said. This dangerous procedure worked and Melton often flew alone after that, chocking the wheels and tying the elevator back with the seat belt so the plane wouldn't get away from him when he propped the Model T engine.

Melton flew his *Houpisine* for more than seven years. During this time he replaced the little airfoil-shaped 2-gallon gas tank from the *Katydid* with an 11-gallon tank. The *Houpisine* made many cross-country flights within a 100-mile radius of Kansas City. Fuel consumption of the 70-mph plane was approximately 3 gallons per hour. Once he took off from Linwood Boulevard, near Jackson Avenue, with a policeman holding up traffic at one end of the block and Ferguson holding it up at the other.

Melton's narrowest escape in the plane came when the crankshaft broke, cutting the engine block in two, while he was in the air over Kansas City. "I was flying over Armourdale at about a thousand feet," he recalls. "Instantly I was covered with hot oil



WITH ADMIRAL BYRD'S OPEN-COCKPIT FOKKER MONOPLANE, at Richards Field, October 1926, Houpisine makes interesting contrast. (40)

MELTON'S THIRD PLANE was called simply "No. 3." Without fanfare, it flew for eight years in the K.C. area, an outstanding example of a homebuilt aircraft. (41)

and water. I jerked my goggles off to see if I still had wings. I did, and I said, 'Clarence, if you've got wings, you can fly.' I saw Pierce Field, where I'd taken off from, but it was a long way off, and I didn't know if I could make it or not. The propeller was jammed against the radiator — not turning — just a dead, dragging blade up front."

"I almost didn't make it. There was a hedge fence at the end of the field, and I got the landing wheels over it, but snagged the tail skid. This threw the plane down, but I leveled off at the last second, and set it down. They told me later it was one of my best landings.

Major Tinker, of the Army Air Corps at Ft. Riley, Kansas, requested that his friend Melton let him test the *Houpisine*. The request was complied with, and a total of 46 army and civilian pilots flew the plane without mishap. Major Tinker later became head of air operations in Hawaii, and the Air Force base there now bears his name.

The *Houpisine* was also called the "pilot's mascot," and everyone who flew it enjoyed its easy handling qualities. Besides Tex LaGrone, other prominent Kansas City pilots who the *Houpisine* were Blaine Tuxhorn, Ben Gregory, Van Gregory (no relation), and Shorty Long. The souped-up Model T engine performed best on aviation fuel. Once, Melton carried a 5-gallon can of fuel in his lap on a cross-country. The edge of the can bruised his legs, numbing them. He had trouble getting the stick back to land, and nearly cracked up — with 5 gallons of high-test aviation fuel on his lap.

In 1934, eleven years after the *Houpisine* emerged from Melton's Kansas City basement, Melton completed a two-place biplane that would be the envy of modern "homebuilders." It weighed 720 pounds, and was powered with a 75-hp Velie-Lambert engine. About the only items carried over from the *Houpisine* were the wheels. This third model (called simply "Number Three,") boasted a more complicated instrument panel — an indication that flying, after all, was growing more complex each year. Melton's wife, Ruth, sewed the fabric on this ship, the third (and last) of Melton's airplanes. "No. 3" had a top wing of 22-foot span, with a 20-foot lower wing. The engine was mounted on rubber blocks and it "didn't vibrate any more than a sewing machine," recalls Melton. Takeoff could be made in seven seconds. Endurance was four hours. Cruising speed was 90 mph. Ceiling was 10,000 feet. The plane

would fly "hands off." It was much faster than the *Houpisine* and more responsive on the controls. Melton didn't let other pilots fly the plane, and sought no publicity for it. It was a comparatively conventional ship, and drew no great attention at local airports, as the *Houpisine* had done.

When the No. 3 was first flown, Melton took his wife and son, Robert for a ride. They rode together in the spacious passenger cockpit.

BEN GREGORY

One of Kansas City aviation's most colorful personalities, Ben Gregory is perhaps best noted for his front-wheel-drive automobiles, and a variety of ingenious inventions that have poured from his creative mind over the years. Exactly how many years we won't say, but Gregory recalls most of the important Kansas City air events, including the 1911 International Balloon Race.

In 1908, he helped assemble an airplane, using bamboo with metal fittings for the fuselage. The power plant was to be a motorcycle engine, but the project was never completed, and no flight tests were made.

The following year, he recalls, an "old fellow from Winoka, Oklahoma built a tandem-wing monoplane at the Demster Machine Works in Kansas City. The wings were actually ailerons attached to cross members. They were rigged to work in relation to each other, like modern ailerons, and there was a rudder with two elevators, one in front and one in back. The propeller was in front, attached through a universal joint to the gasoline engine. If you wanted to pull the plane up or down, you changed the thrust angle of the prop." Gregory remembers that the unusual monoplane had four wheels which swiveled in all directions. The plane was taken to Winoka and set up in a 600-acre field. Ben was asked to try and fly it. He spent "several weekends" taxiing the curious aircraft across the huge field. A large crowd gathered to watch. "Somebody said I actually got it off the ground," Gregory remarked. "But I'm glad it didn't fly, or I'd surely been killed. The thrust line was all wrong. But of course I didn't know that then. Also, you had to turn the swivel wheels whenever you wanted to turn it on the ground. Nobody had that many hands."

In 1910, Gregory helped test a biplane in Overland Park. The plane didn't have enough power to fly, but eventually its builders installed a larger engine and flew it. About the same time, Gregory recalls, a pair of brothers built a small monoplane with a motorcycle engine and tested it on the lawn of William Rockhill Nelson's home, where the Nelson Gallery now stands. No streets interrupted the green expanse as they do now, and the brothers had nearly a half-mile to test their craft. But they were able to make only short hop-flights with it.

In 1921, Gregory bought a *Lewis Bennett*, a modification of the Curtiss JN-4. It was a "wide Jenny," with room in both cockpits for two persons. The wings had a 6-foot chord, replacing the original 5-foot width. An interesting feature was the wheel control, which replaced the stick. "This was the first "tractor" airplane I'd flown," recalls Gregory. I bought it from Frank Stanton, sales manager of the company. There were only three built, and I eventually owned all of them. About the same time I bought a *Canuck* (Canadian version of the Jenny, with ailerons on both wings.) A friend of mine, Grant Kinnell, wanted to learn to fly, so I let him use my *Canuck*. He took one lesson. At the end of it, the *Canuck* was upside-down in some bushes at 85th and Belinder. I remember they pried Kinnell out of the cockpit, and Stanton told him, "well, so endeth the first lesson."

BEN GREGORY above K.C. in his Jenny. (42)

GREGORY, May 5, 1926. (43)

GREGORY IN A SWALLOW, June 8, 1926. (44)

During this time Gregory was building the first of his front-wheel-drive cars, and had little time to fly. But he had a hard time finding reliable pilots, so he began flying the *Lewis Bennett* himself, taking up paying customers and students at Richards Field. So began Ben Gregory's career as a barnstormer.

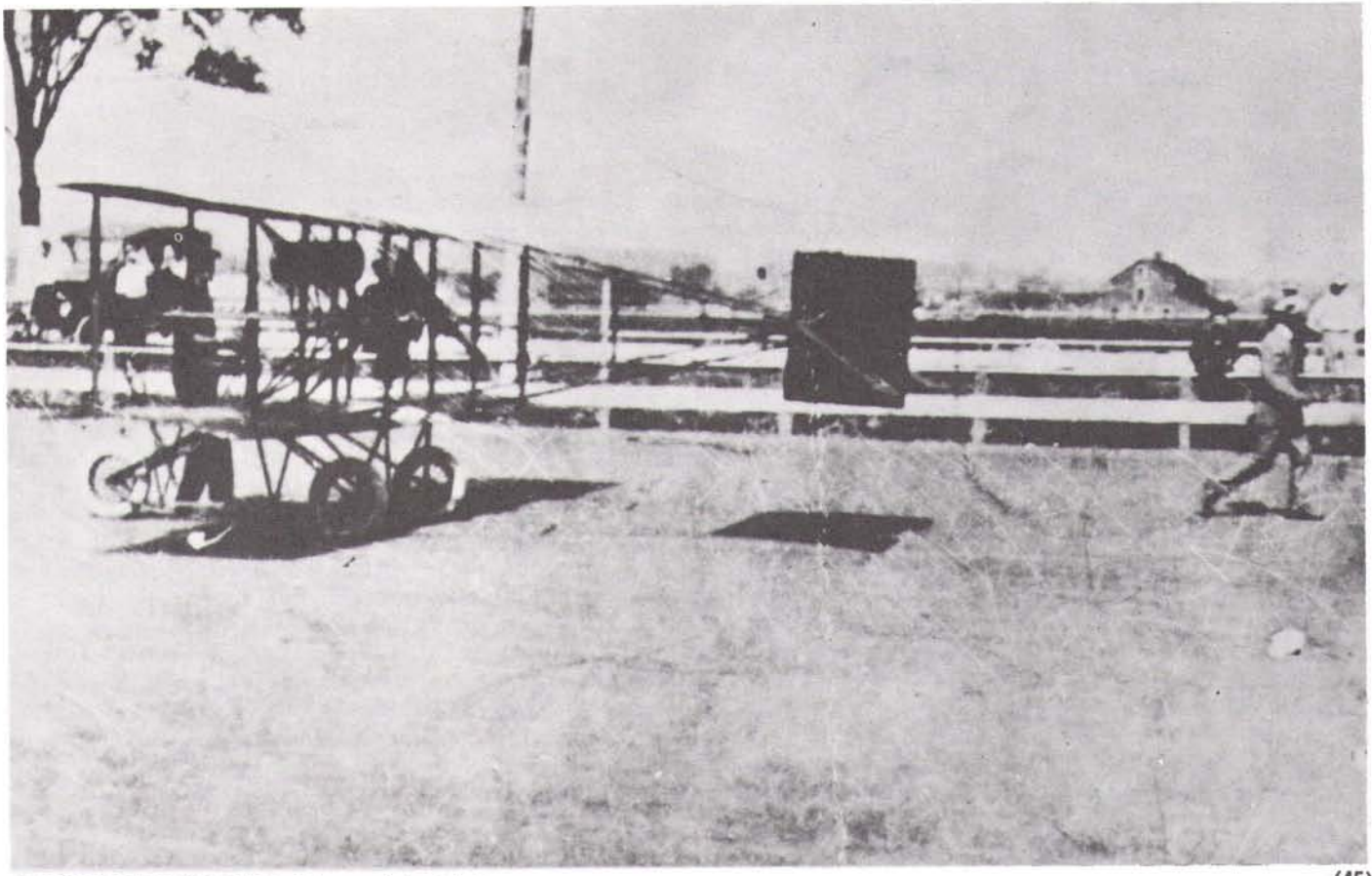
1924 found Ben flying his *Lewis Bennett* near Joplin, Mo., hopping rides to lead-miners in the area. Nearby was a children's tuberculosis sanitorium. Gregory had been flying at all hours, taking up the miners when they got off their shifts, and he called the sanitorium to see if he might be disturbing the young patients. "My gosh, no," the hospital chief told him. "Your airplane is the best therapy these kids have ever had. Keep flying. It's given them all something to talk about." Gregory had an idea. He made a few phone calls. Soon a Joplin tent and awning company had erected a tent with a carpeted floor. A local dairy brought ice cream by the 5-gallon drum. A gas company donated enough gas to keep the *Lewis Bennett* flying a month. And before the weekend was over, every child in the hospital went for a ride in Ben Gregory's airplane. There was only one nurse available, so many times Ben had to make a special flight for each child. But he kept flying. A little boy, about six years old but weighing no more than 30 pounds, was carried to the plane on a pillow. Ben lifted him into the wide cockpit. "Am I hurting you, son?" he asked. The boy looked up with enormous, pain-filled eyes. "Oh, no sir. As long as I get to fly in your airplane."

"We really couldn't tell how much weight the *Lewis Bennett* would carry," Gregory says. The end of the ship came when I loaded seven people in it and broke the undercarriage. With a heavier landing gear, there's no telling how much weight that plane would haul."

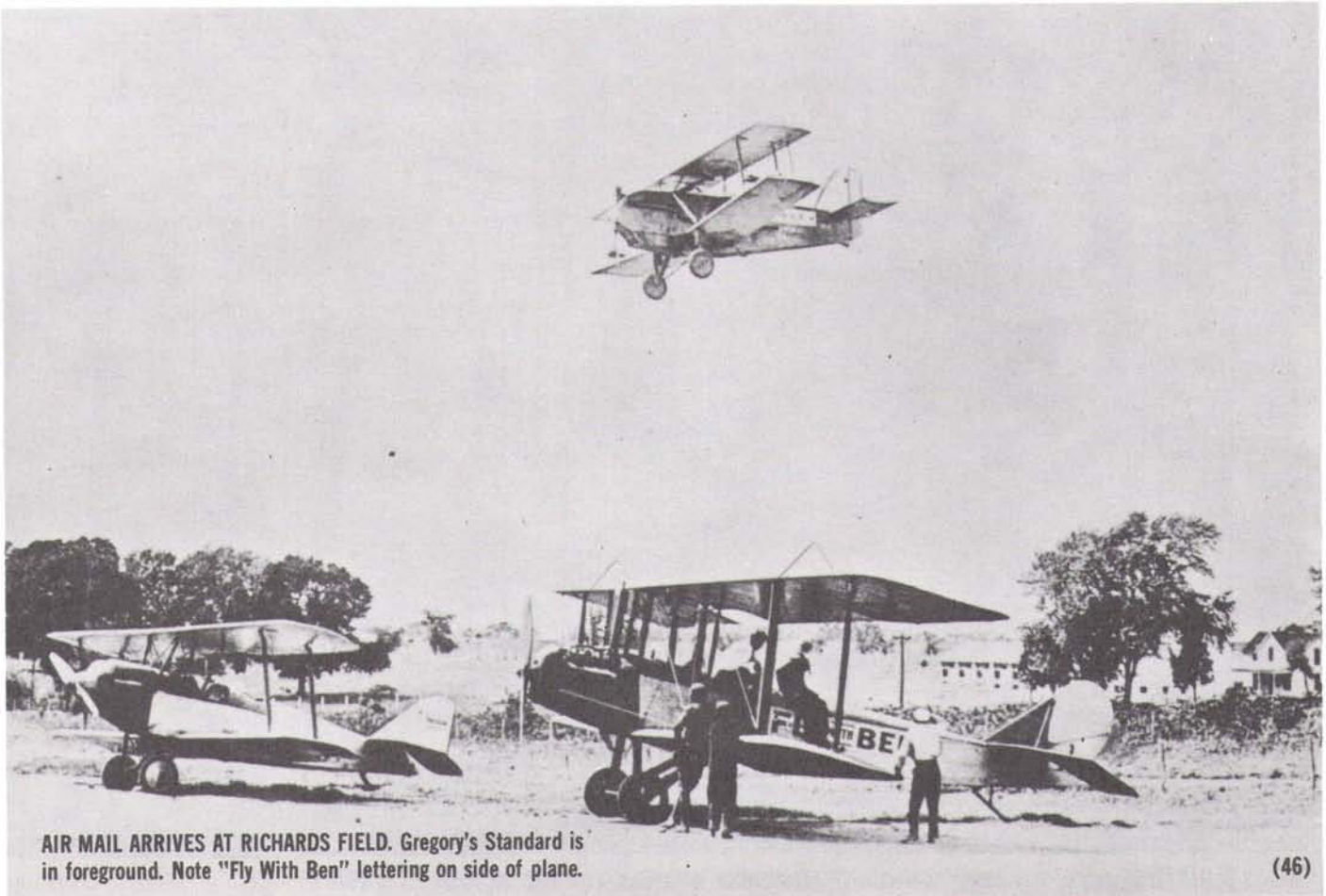
Other aircraft in Gregory's early career included *Swallows*, *Standards*, and a World War I *Thomas-Morse Scout*, built in Chicago. "The *Thomas-Morse* was a fast airplane. It had an OXX-6 engine. But the elevator control got so it would pull the elevators separately, causing "tail flutter," and it scared me so much I gave up flying it."

Early in his career, Gregory was asked to test-fly an airplane for a pair of Independence, Mo. boys. Ben agreed, and began taxiing the craft across the grass at Richards Field. A large crowd had gathered to watch the latest development in aviation. Gregory was about to gather speed for his takeoff, when he noticed the aileron wires were crossed. He taxied back to where the boys were waiting, when a man in the crowd said, "he's yellow — let me fly it." Gregory, smarting with indignation, gunned the engine and took off. The plane wobbled erratically in the air as Ben pulled at the stick, fighting his reflexes to keep the reverse-position ailerons doing their job. When he landed, his tormenter had more to say, and many persons in the crowd were laughing at Ben's seemingly amateur performance. After another series of rebukes which ended with "let me show you how to fly that crate," the jester climbed aboard and took the controls. "It was a — well, an interesting show," recalls Gregory.

(continued on page 30)



OVERLAND PARK BIPLANE that Gregory helped test. (45)



AIR MAIL ARRIVES AT RICHARDS FIELD. Gregory's Standard is in foreground. Note "Fly With Ben" lettering on side of plane. (46)

"When the man got back on the ground he was hopping mad. Wanted to know why I hadn't told him about the ailerons. Hell, he hadn't asked me."

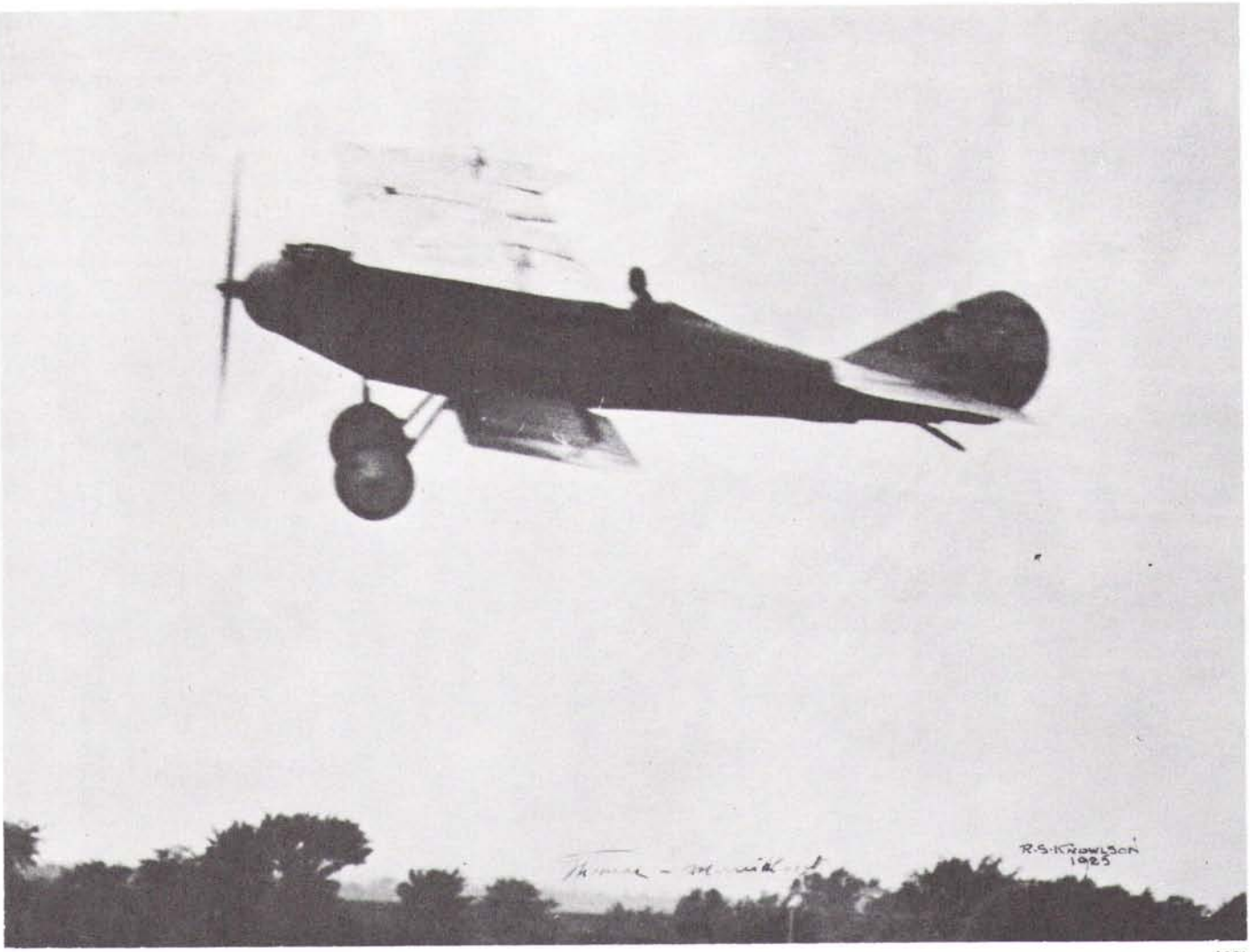
In 1925, Gregory helped organize an airline between Kansas City and Wichita. One of the chief backers was oilman Dan Corbin. The company planned to use an all-wood biplane called the *Woodson Express* . Power was to be the Salmson engine available from a company in Ohio. Two of the engines were procured, and the firm spent some $10,000 cutting and fitting copper fins to the engines, converting them from water-cooled to air-cooled. They figured they needed 50 to 100 engines, and were in the process of completing the deal when Art Smith, pilot for National, the first transcontinental air-mail, and a part-owner of the engines, was killed in a crash in Montpelier, Ohio. The courts tied up the engines, preventing Gregory and Corbin from getting them, and the airline folded. The Menasco company, later to become a major manufacturer of aircraft engines, acquired the converted Salmsons, and these became the prototypes for the Menasco line.

Gregory experienced a narrow escape while flying a *Jenny* in the Ozarks. The *Jenny*, an army crate, needed repair, and the Hisso engine was a collection of vibrations. At about 1,000 feet over the hills, the engine and the airplane parted company. Ben pointed the *Jenny* straight down to overcome the loss of nose-weight, and didn't pull up until flare-out height. The landing was successful.

BARNSTORMING IN A FORD

In 1929, Ben began a career which was to bring him fame as one of America's foremost big-plane barnstormers. And the aircraft he chose was the "Tin Goose," the venerable Ford Tri-Motor. Carrying a maximum of 14 passengers per hop, Gregory began operations in a year when America was sinking into the depths of its greatest financial depression: the '29 Crash. His success was unique and hard-earned. It was a mixture of shrewd advertising, a keen knowledge of human nature, and many hours of bone-numbing flying.

LEWIS BENNETT, Gregory's "wide Jenny," advertised his front wheel drive cars, a hot item for motorists in 1920's. (47)



THOMAS-MORSE developed "tail flutter" from poorly arranged elevator wires. Ben sold it. (48)

Things were going a little flat for Ben as he began a tour of the Southwest. By the time he reached Victoria, Texas, business had just about dropped off altogether. A large crowd had gathered, but few would part with the $1.50 fare. In desperation, Ben grabbed the mike of the public address system and shouted, "all right — how many of you folks would fly with me for a dollar?" A few hands went up. "How many will take a ride for seventy-five cents?" More hands appeared. "How many of you will pay fifty cents to fly in my Ford?" Nearly every hand went up. During the next three days, nearly 3,000 persons flew with Ben. Even a WPA relief check could be stretched enough to allow a ride in Ben's Tin Goose for fifty cents.

From then on, the advertising went out in advance: "Fly with Ben! Day and Night Airplane Rides: 50c; Bring Grandma, Grandpa and the Children and Everybody Fly!" Just about everybody did. In San Antonio, 8,000 persons turned out to ride in the tri-motor. Ben called his wife, and she joined him for a winter of barnstorming. In the spring they headed back home to Kansas City. At Lawton, Oklahoma they carried the entire population: 8,000. At Norman, the entire enrollment of the university turned out to "Fly with Ben." Joplin went mad for Ben, with 12,000 persons paying fifty cents for a ride in the Ford. In Springfield, the crowd was so large it broke down a heavy chain-link fence around the airport.

Later, Ben and his crew were in Iowa, and they tried to hop rides in Davenport. But the airport manager wouldn't let them in. Other barnstormers had failed to make expenses at Davenport. Even a promise of 10 percent of the take, the purchase of gas at the field, and Ben doing his own advertising wouldn't change the manager's mind. Finally, Ben offered to let the manager (and the owner of the field) call other airport managers by telephone and learn for themselves the kind of success Ben had been having. Impressed by Ben's willingness to shell out the phone money, the manager and the owner finally relented. Two weeks later, after flying every night and all day on weekends, Ben had carried nearly 8,000 persons.

In Waterloo, it was the same story. But the local airport people stood firm. No airplane-driver with a harebrained barnstorming scheme was going to attract a lot of gawky sightseers to the Waterloo airport. They would just tear up the sod and spoil everyone else's flying. But Ben wasn't discouraged. He went to the local flight instructor and bought an hour of flight instruction time.

TRI-MOTOR STYLE luxury featured wicker seats, curtains, small ornate lamps. It was the "sandwich and apple" era of airline travel, when passenger comfort was often regulated by opening the windows in the pilot cabin. (49)

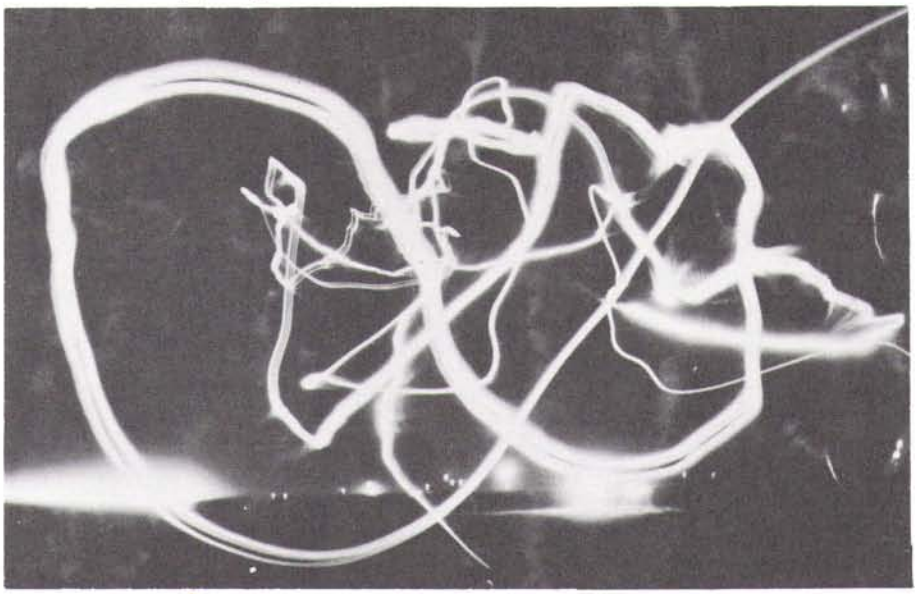
Trouble was, the "student" wouldn't do what the "instructor" wanted. He kept hauling the plane around, looking over the side of the cockpit. The next day, Ben rented a large field from a farmer near Waterloo. The farmer cut his crop of kafir corn for the fall silo-filling. Then Ben took down the barbed wire at both ends of the field and started running ads in the local paper. It took two weeks to carry the crowd that came out. Among the passengers lined up to ride in the tri-motor was a young man who caught Ben's eye, and Ben motioned to his helper to invite him aboard for a ride in the right-hand seat up front. The man eagerly climbed aboard, but when they were underway, Ben noticed the fellow wasn't enjoying the view like most of his passengers, but staring suspiciously at him. Ben looked back at his passenger, and the man gave a whoop of recognition. "I know you," he said. "You're the guy who paid me for that flying lesson last week."

A curious phenomenon developed as Ben barnstormed around the midwest in the *Ford Tri-Motor:* the in-flight wedding. Everywhere Ben went, couples not only wanted to fly with him, they wanted to get married in his plane. It started as most fads do, with a couple enjoying a unique stunt. But others picked up the idea, and the demand grew. So Ben hired a preacher by the hour, supplied licenses, and got local jewelers to furnish wedding rings for the publicity. At Quincy, Illinois, *twelve* weddings were performed aboard Ben's plane in a single afternoon. Altogether, 96 weddings wook place in the not-so-dignified cabin of the rattling tri-motor.

In 1936, Ben put together an aerial act unique in midwest aviation: the "Ship from Mars." Taking the seats out of a tri-motor, he replaced them with a 15,000-watt generator, which powered a number of searchlights, and about 250 feet of neon tubing attached to each side of the ship. Also, there was a device which poured smoke from all three engines. For six years, Gregory's "Ship from Mars" thrilled fair-goers and townspeople throughout the midwest. It created front-page news wherever it appeared, and put Ben in nearly every major magazine. In many towns it provoked reports of a plane crash, and many a

GREGORY'S "SHIP FROM MARS" would wait until dark . . . **(50)**

. . . then take off, spewing smoke past its neon-lit sides . . . **(51)**



. . . to leave an eerie trail of flame in the night sky. **(52)**

breathless reporter turned in a story of a "flaming holocaust," only to have his editor laugh him out of the city room.

The end of Ben Gregory's barnstorming career came in 1942, when he was helping ferry his tri-motor from Ft. Worth to Kansas City. He had sold the plane to Alaskan Star Airlines, and it was to be overhauled in Kansas City. Ben began the trip as a passenger, but took over north of Nevada, Missouri, when the plane began to lose altitude after having engine failure in the port engine. With the nose engine developing less than full rpm, it was obvious they would have to find a landing field in a hurry. But where? They were over the Marais des Cygne river, which was out of its banks. There was a great lake below, the worst possible surface for landing an airplane. Ben had taken over the left-hand seat. He tried to fasten his seat-belt, but the pilot had been a much smaller man. Ben sighted a small field on a ridge just north of the river bottom. At least it was dry ground, but small. As he brought the crippled Ford over a hedge, a wingtip caught, and the big plane slewed in at an angle, landing hard in a left-hand ground loop. There was no way to add power in the port engine and straighten her out. The sturdy transport proved her solid construction as she wrenched to a halt.

Ben was the only one injured. It was only a hard landing, not a crash. He had been thrown from his seat and against the rudder bar. His ankle was shattered. A doctor said he'd have to amputate, but Ben said, "if you cut my leg off, do it up here," and pointed to his neck. The foot was saved, with only a scar and a limp reminding Ben of a bad landing.

That was nearly thirty years ago. Alaskan Star Airlines got their plane, and Ben Gregory retired from active barnstorming. But a lot of midwesterners can still recall how much fun it was to "Fly with Ben."

DR. BROCK IN 1930. (54)

"Every Day a Flight"

The Story of Dr. J. D. Brock

Few pilots will ever match the feat of flying posted by Dr. J. D. Brock, known as Kansas City's "flying doctor." On November 15, 1939, Dr. Brock celebrated ten years of flying with his 3,650th flight — one each day for ten years! This dedicated pilot, who held the well-deserved title of the world's most consistent flier, was at one time the head of the Specialty Optical company in Kansas City. He was active in promoting aviation, and for several years gave the Brock trophy for the most outstanding pilot participating in international aerobatic contests. He was also a member of the National Aeronautic Association.

Dr. Brock had already become a local legend in 1930 when he was honored for one year of consecutive daily flights. Lou Holland, another outstanding aviation promoter in Kansas City, was program chairman for the event. William Stout, designer of the airplane that led to the development of the *Ford Tri-Motor*, was a featured speaker. On the completion of his 2,000th consecutive daily flight, Dr. Brock was honored at a luncheon in Washington given by the National Aeronautic Association. Among the large group of dignitaries attending the affair was then-Senator Harry S. Truman.

Dr. Brock's last years were spent at his 17,000-acre ranch near Alton, Mo., where he died in 1953 at the age of 72.

DR. BROCK, HIS AIRPLANE AND HIS AUTOMOBILE. The plane is a Taperwing Waco, powered by a Siemens-Halske engine. The auto is a Hupmobile.(55)

Racers

SETTING THE STAGE FOR SPEED

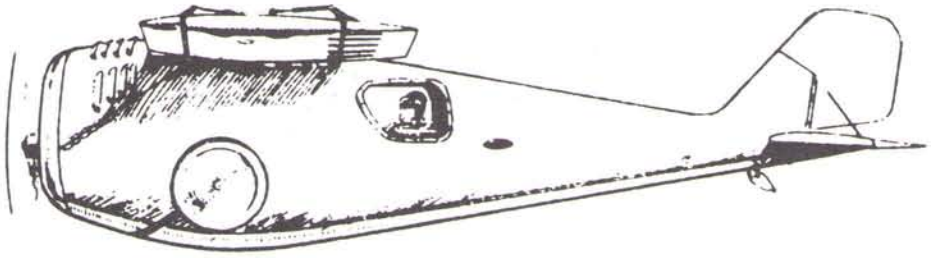
In the early days of flying, racing was the same as exhibition flying and usually was held in conjunction with an air show or fair. Later it developed into pure racing — speed contests for prizes.

When speed and altitude contests were in their infancy, Kansas City's Ralph Johnstone, a former circus cyclist, joined the Wright exhibition team then touring the country. He and Arch Hoxey, another team member, became known as the "Heavenly Twins" for their prowess with the Wright biplanes. Ralph won the altitude contest at the Belmont Park (N.Y.) air meet in 1910 with a climb to an unheard-of 9,714 feet. He was killed later in the year at Denver, trying to beat his own (and the world's) record.

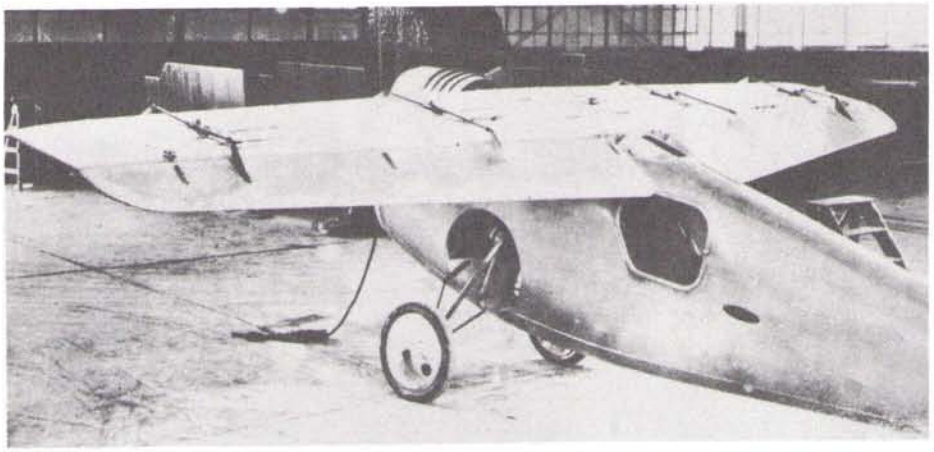
Inspired by such feats, and recognizing the growing public interest in flying machines, H. Young, a Kansas City promoter, formed the Young Aeroplane Company of Kansas City and hired a Kansas pilot and builder, A. K. Longren, to make exhibitions at fairs. This association lasted from 1911 to 1914. Young's company competed with the Benoist Aircraft Company of St. Louis for bookings throughout the midwest.

The Pulitzer brothers of St. Louis sponsored air races which spurred aviation progress. These contests in the 1920's tested both civil and military ships, resulted in stronger and faster U.S. aircraft.

Milton C. Bauman of Kansas City was a designer and engineer of the period. His natural mechanical ability, plus his aeronautical knowledge, created many great and near-great airplanes. As designer for the Dayton-Wright Airplane Company (whose consulting engineer was Orville Wright), Bauman helped father the little RB-1 racer, built primarily for the 1920 Gordon Bennett race. The plane had a retractible landing gear, full cantilever wing of solid balsa, and a 250-hp Hall-Scott engine. The leading and trailing wing edges hinged so that a pilot could adjust camber at will, creating slower landings and faster takeoffs. The pilot was completely enclosed and could see out the side window only.



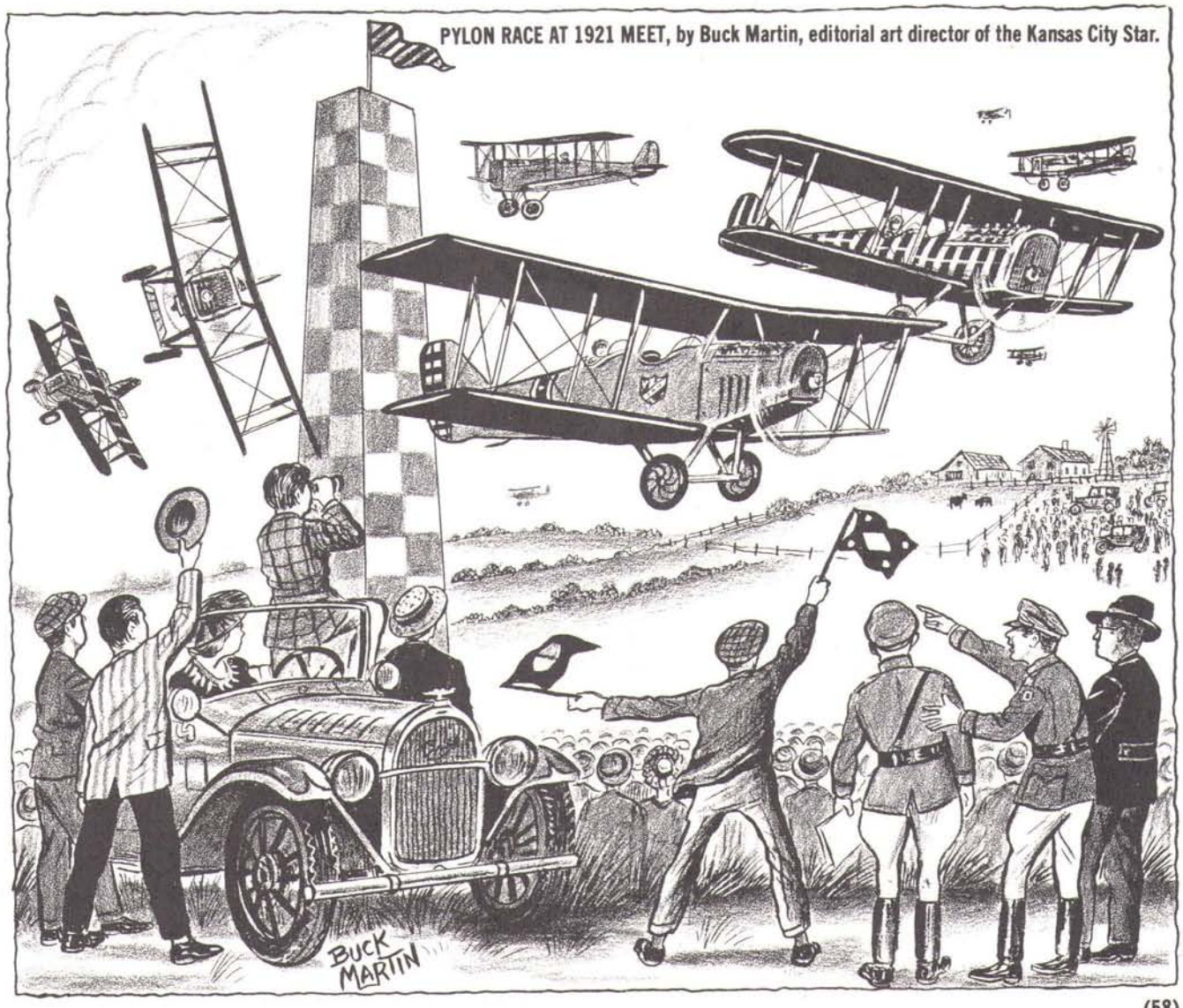
DAYTON-WRIGHT RACER was Bauman design, featured retractable gear and changeable-camber wings. (56)



OVERHEAD VIEW shows rods which activated wing flaps, and the gear mechanism. Failure of these linked mechanisms caused racer to drop out of 1920 Gordon Bennett race, after 178-mph qualifying run. (57)

Bauman was project engineer for the Inland Aircraft Company of Kansas City from 1928 through 1930. Refinements on L. D. Bonebrake's original 1928 design resulted in the *S-300 Sport*, a plane which won a large number of races.

In 1930, Bauman was called in as consulting engineer for the Butler Aircraft Company. He immediately noticed that the *Skyway*, pride and joy of the Kansas City company, was tail-heavy and overweight. Bauman modified Waverly Stearman's original design and renamed it the *Blackhawk*. Art Goebel later set a record in this plane, flying from Kansas City to Washington in less than 9½ hours.



PYLON RACE AT 1921 MEET, by Buck Martin, editorial art director of the Kansas City Star.

(58)

THE 1921 AMERICAN LEGION AIR MEET

November 1, 1921 marked the high-point of the Kansas City American Legion Air Meet, one of several aerial shows which attracted huge crowds in various cities around the country. It was Derby Day. More than 45,000 persons crowded onto the Legion Field at 55th and Belinder to watch the spectacle of more thirteen airplanes screaming around the three-pylon course. It was a 175-mile race — ten laps around a 17½-mile course.

Winner of the race was Lloyd Bertaud, flying a *Ballilla Ansaldo* for the Aero Import Corporation of New York. Bertaud completed the course in one hour, fifteen and two-fifths seconds to take the cup and $2,500 in cash from the Kansas City Flying Club. Bertaud's aircraft was powered by a 12-cylinder Curtiss D-12 engine developing 400 horsepower. Lt. J. D. Givens took second place in a *DeHavilland*.

LLOYD BERTAUD, winner of the pylon race, and his Ballilla Ansaldo. (59)

Racers

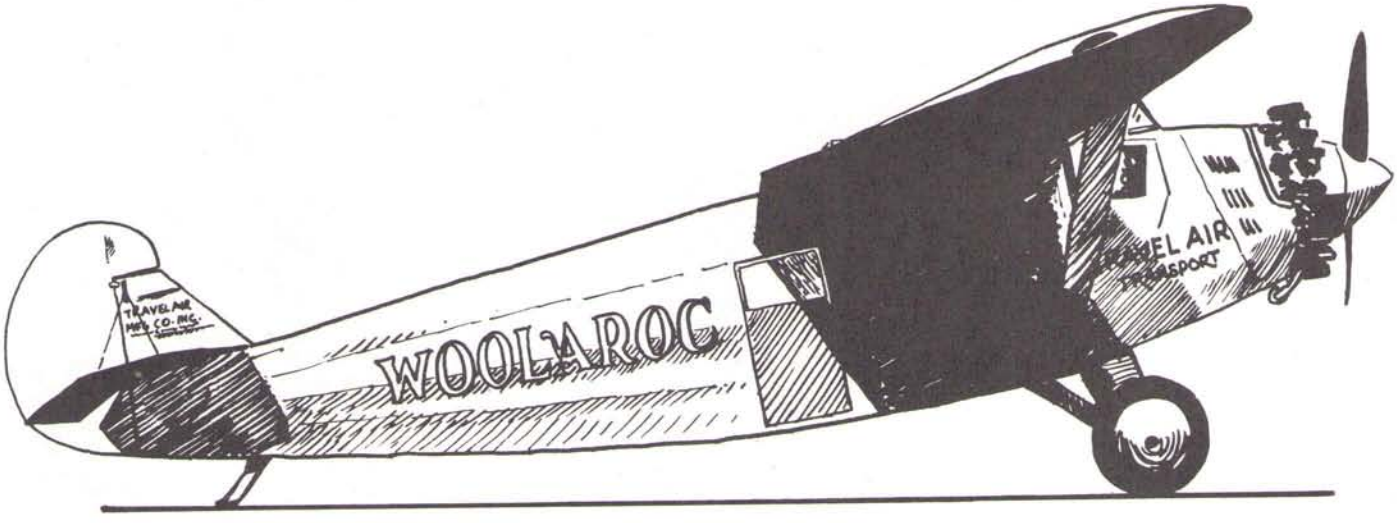
ART GOEBEL and the DOLE DERBY

It was called the "doleful Dole Derby." James D. Dole, head of the Dole pineapple firm, offered $25,000 for the first civilian pilot to fly from San Francisco to Hawaii. There was a $10,000 second prize. Besides the obvious boost the publicity would give Hawaiian industry and the personal gains involved, Dole hoped to establish better air links with the mainland. The race would (and did) provide impetus for increased air activity over the Pacific, bringing the islands closer to their far-away mainland neighbors. Dole hoped that Lindbergh would participate. He didn't, but his ocean-spanning Paris flight earlier in the year created national fervor for distance flying that led to the "Pineapple Derby" and other such contests.

The grueling 2,439-mile flight demanded special equipment. An airplane would have to lift some 400 extra gallons of gasoline, 20 gallons of oil and a 2-man crew with radio equipment and emergency supplies.

Arthur C. Goebel, then a test pilot for Douglas Aircraft corporation, Santa Monica, California, decided a *Travel Air* would be the best plane for such a flight, and he determined to get one. He hurried to Wichita, where he tried to interest Walter Beech in sponsoring him. This he could not do, but with financial help from Oklahoma oilman Frank Phillips, Goebel bought a *Travel Air* from Beech. In honor of his benefactor, he named the plane "Woolaroc," after Phillips' Oklahoma ranch. The oilman also was sponsoring one of his own pilots, Bennett Griffin, in a *Travel Air*.

ART GOEBEL by the Woolaroc in Hawaii. (60)
Below: Goebel's Woolaroc. (61)

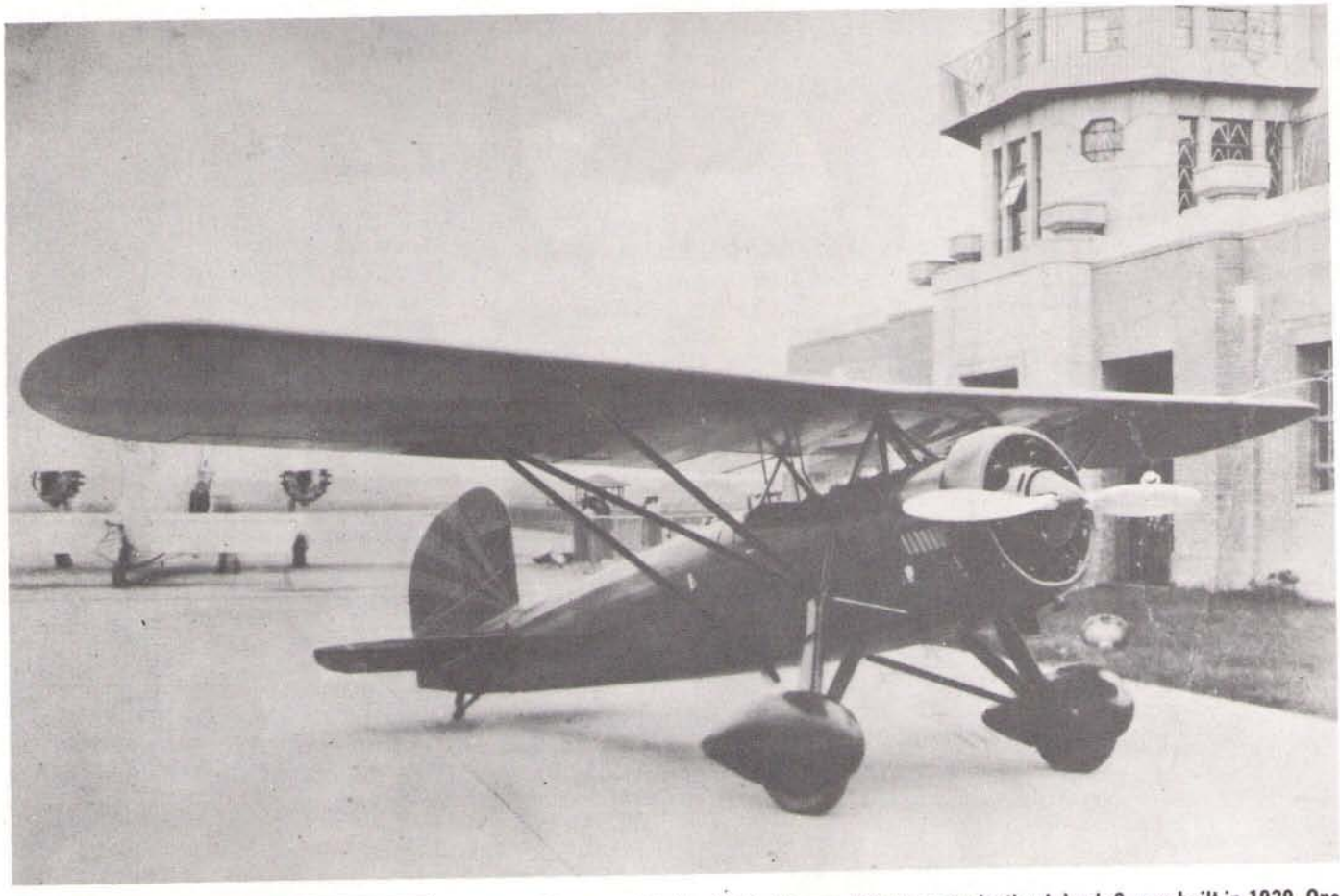


ART GOEBEL IN FLYING GEAR. **(62)**

Goebel's plane was completed just in time for the race, which began from a smoothed-out 7,000-ft. strip in Oakland. Fifteen planes had entered the race. At noon, August 16, 1927, eight of them were ready, and the race was on. Two crashed on takeoff, the planes unable to lift their load of fuel. Jack Frost's *Lockheed Vega*, favored to win the race, took off like a bullet and climbed over the Golden Gate. It was never seen again. A *Buhl Air Sedan*, the "Miss Doran," with 22-year old Mildred Doran aboard, took off and returned with an overheated engine. It was repaired and took off again, to be forever lost in the vast Pacific. Bennett Griffin's *Travel Air* took off, and returned later with a disabled engine. It stayed in Oakland. Bill Erwin, an Air Service ace flying a specially-built *Swallow*, took off and some of the fuselage fabric tore loose. He returned, repaired the damage, and took off two days later "bound for Hong Kong." His plane was never seen again. Martin Jensen, a Kansas barnstormer with a flying service in Honolulu, took off in a *Breese* monoplane, dodging masts of ships while fighting for altitude in San Francisco bay. Then Goebel took off, climbing high to get on top of the Pacific overcast. He landed in Hawaii 26 hours and 17 minutes later, the winner of the race. Jensen arrived two hours later. The only planes to finish the race, they were the winners.

In 1929, Art Goebel established a flying school in Kansas City at Municipal Airport. Within a short time, 65 students were enrolled. In September, Goebel won the Mexico City-Kansas City Air Derby in a Travel Air. Goebel flew in many speed and stunt-flying events all over the country.

ART GOEBEL the businessman. Photo taken in December, 1928. **(63)**



THE INLAND SPORT

The W-500, powered by the 110-hp Warner. This was a production Inland; 8 were built in 1930. One of the fastest personal planes of the period, this model boasted a Townend Speed Ring engine cowl and streamlined wheel pants for speed. (64)

Between 1924 and 1926, a Kansas Citian named Bahl put together a homebuilt "one-only" aircraft from two Curtiss JU-4 *Jennies*, a *Thomas-Morse*, and some odds and ends from various other wrecked airplanes. He called his creation the *Lark*, but it flew more like a chicken, putting its builder no higher than the middle wires of a fence at Richards Field.

In 1927, he disgustedly sold the patched-up remains to Blaine Tuxhorn, who made several modifications on the parasol monoplane, but with no more success than Bahl. He finally got expert opinion from Dewey Bonebrake, an engineer, who advised him to forget the *Lark;* he would build a better plane.

Inspired by the mistake-ridden *Lark*, Bonebrake set up shop in the fall of 1927 at 71st and Holmes Road and proceeded to design and build the *Bonebrake Parasol*, powered with a 40-hp Wright-Anzani. In June, 1928, the plane was test-flown by Gene Gebhart. The rest of the summer, the plane underwent modifications at Tuxhorn's shop, and in the fall, Gebhart took it to the National Air Races in Los Angeles. There the plane caught the attention of Art Hardgrave, a partner in the City Ice Company.

Hardgrave had been looking for a plane to manufacture, and at the end of a few weeks he came to terms with Bonebrake, who sold his interest in the *Bonebrake Parasol*, and moved to California. Thus, the Inland Aviation Company was born. Bonebrake's parasol monoplane became the *Inland Sport*.

Milton Bauman came over from Butler Aviation to become project engineer. Wilfred Moore, barnstormer and auto racer, was hired as test pilot.

The first factory was at 14th and Minnesota. Two welders, a motorcycle mechanic and an ex-cabinet maker were hired, and the new firm produced four copies of the first airplane. Then they took three of the planes on the racing circuit to test and demonstrate their speed. After winning races in Omaha, Des Moines

and Little Rock, the company entered the National Air Races at Los Angeles. There, Bill Moore flew the 90-hp Warner-powered S-400 to fifth place at 116.73 mph and Bernham Diggle, close friend of Moore, brought the 60-hp LeBlond-powered S-300 home to a third place finish in the light-plane class.

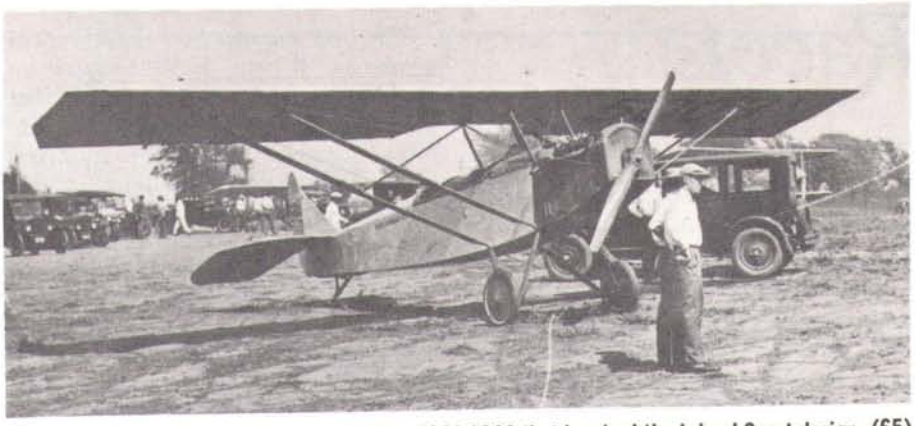
After getting the S-300 type-certified, Moore (now general manager) hired three Air Service buddies, Charles Daily, Bill Ong and Bill Green as pilot-salesmen. In January, 1930, the company moved into a new hangar building at the south end of Fairfax Airport, and looked forward to the 1930 racing season to promote and sell their airplanes.

The *Inland Sport* was a success at regional races, taking a large share of prizes. Five ships went to the National Air Races at Cleveland. Two Warner-powered S-400's were loaned to Mae Haizlip and Vera Walker to fly in the women's 500-cubic inch 25-mile race. They won first and second. Then Bernham Diggle took the LeBlond-powered S-300 to second place in the men's 275-cubic inch class race, and Bill Green and Diggle took second and third in the 350-cubic inch class race. Bill Moore won the men's 450-cubic inch trophy. Then Bill Ong took the 650-cubic inch race with Moore hot on his heels in second place.

Next came the Sportsman Pilot Race for amateurs. All three Warner-powered planes were entered, and they won it one-two-three. Art Hardgrave finished first, followed by W. G. Houston in Ong's racer, and M. C. Meigs in Bill Moore's ship.

The Inland team flew home to K.C. with $4,200 in prize money, proven airplanes, and a new reputation. But the Depression, plus a couple of later test-flight accidents, were to put the company out of business. In 22 months of manufacture, 46 of the racers were sold.

Special thanks to DON PRATT, nationally-noted aviation historian and writer, for his cooperation in providing us with much of the information from which the above article was written.



THE BAHL LARK. "One-only" parasol built in 1924-1926 that inspired the Inland Sport design. (65)

Charles Daily, pilot-salesman for Inland, in typical snapshot pose of the period. (66)

S-300, with 60-hp LeBlond 5-cylinder radial engine. Built in 1929. (67)

S-400, with 90-hp Warner engine. Chrome-plated collector exhaust ring is optional. (68)
Above two photos taken at Municipal Airport, K.C.

Racers

BENNY HOWARD

There were pilots who built planes, and there were builders who flew them. Benny Howard was both. He came into the racing business with a lot more than book-time — he had flown the mail around the midwest in an era when getting from point A to point B frequently meant risking your neck. But the early air mail pilots knew their necks meant a lot less than "getting the mail through." It took skill, courage, and determination to fly in those days. Benny Howard had what it took. And when his mind became set on racing, he had what it took to produce some some of history's most exciting and successful racers.

The first one was *Pete*. Like a lot of airplanes, it was built around an engine — a 90-hp Wright Gypsy that Benny had seen in St. Louis. He talked the owner to loan it to him, and he built *Pete* in 1930. Benny was a pilot for United Air Lines then, and built the jewel-like racer in his spare time. It was a conventionally-built ship, with a fuselage built up of steel tubing with wood formers and stringers, covered with fabric. Wing and tail surfaces were wood, fabric covered. *Pete* spelled instant success for Benny, who whistled around the pylons in the 1930 Thompson Trophy race at 162.8 mph, capturing third place.

Benny's second and third racers were the *Ike* and *Mike*, look-alike planes that were to make notable impressions on the racing circuit for the next three years. William Ong flew *Ike* to seventh place in the 1932 Thompson Trophy dash, and Harold Neumann captured third place with it in the 1934 Greve Trophy race.

Mike was flown to a fourth-place finish by Joe Jacobson in the 1935 Thompson Trophy race, and in the same year, Harold Neumann flew it to win the Greve Trophy. It was wrecked by Jacobson the following year at Los Angeles.

RIGHT:

MIKE took fourth in the 1935 Thompson Trophy race, won the 1935 Greve Trophy.

LOWER RIGHT:

IKE was near-twin of MIKE, but sat higher on its landing gear. Placed third in Greve Trophy race in 1934.

BELOW:

PETE was Howard's first racer, took third place in the 1930 Thompson Trophy race. All of Howard's planes were distinctive in their all-white paint with black numerals.

(69)

(70)

(71)

MR. MULLIGAN

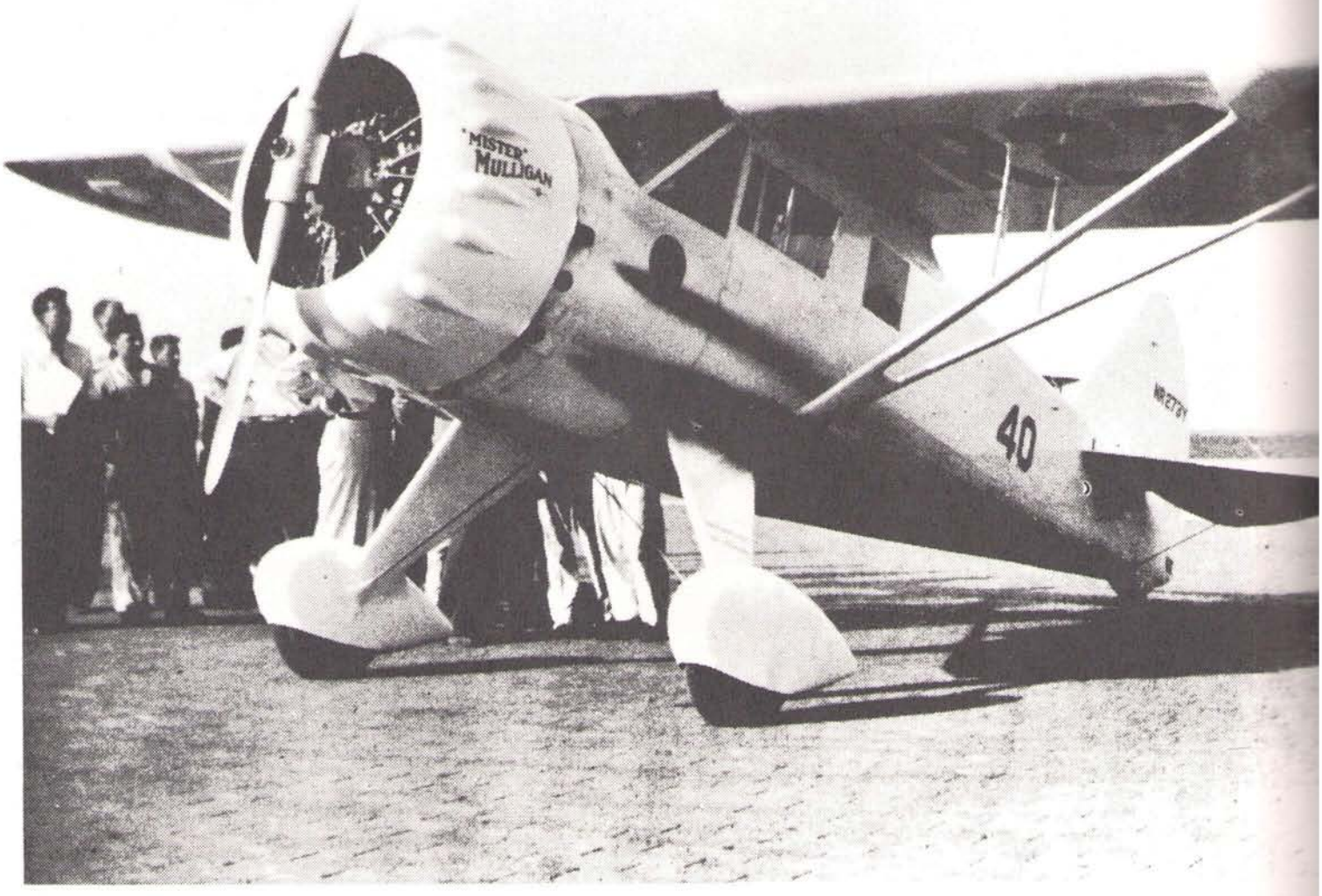
In 1932, Benny Howard had been looking for a new design in an airplane — one that would be a racing machine as well as a commercially marketable aircraft. He wanted it to carry four or five passengers.

Ike, his second racer, was finished and doing well. *Mike*, a slightly larger version, was almost ready.

He was flying a new *Ford Tri-Motor* on his usual mail run. Harold Neumann, then a Moline resident, decided to fly alongside Benny on the Moline-Des Moines-Kansas City run. Neumann took off first and was cruising in his *Monocoupe*, nursing the 90-hp Lambert engine along for maximum economy. "Suddenly, there was Benny," Neumann recalls, "pulling up alongside in the big *Tri-Motor*. We flew beside each other for awhile, and then he opened up the 900-hp trio of engines and roared on ahead. I pushed the *Monocoupe* a little, and we arrived in Des Moines about the same time. I kidded him unmercifully on the ground, and he took off on the Kansas City leg a full ten minutes ahead of me. I jumped in the *Monocoupe* and started after him, passing him within an hour. I smiled and waved as I flew by, and arrived in Kansas City ahead of him."

This started the wheels turning in Benny's head. The year before, Johnny Livingston (Monocoupe's factory pilot) had almost beat his best racing plane in a stock two-place *Monocoupe*. Benny had gotten a close airborne look at the clean design and smooth, straight wing that made the *Monocoupe* so fast. That night in the Municipal Airport coffee shop, Benny made the first rough sketches of *Mr. Mulligan*.

Mr. Mulligan (the Irish names honored Mrs. Howard's side of the family) was built in the American Eagle factory building across the street from Fairfax Airport. Drafting started September 10, 1933. About ten persons worked on the project, according to Eddie Fisher, one of the builders. Others involved were Jess Hill, who worked with tubing, Gordon Israel, who did the stress work, and a Mr. Wooly, who was a rib constructor. When the time came to apply the plywood on the wing surface, a number of part-time workers were brought in from TWA. *Mr. Mulligan* was completed and rolled out of the hangar June 20, 1934.



Mr. Mulligan flew on to win the 1935 Thompson Race (piloted by Neumann) and the 1935 Bendix Race (piloted by Howard), the only aircraft ever to take both races.

RIGHT:

Benny Howard (on the left) in 1936 with his co-pilot, Gordon Israel.

BELOW:

People called the four-place MR. MULLIGAN a king-size Monocoupe. Fuselage was welded steel tubing, fabric covered. Wing panels had solid-spruce spars, built-up ribs covered with plywood skin. Pratt & Whitney engine developed 830 hp. Utilizing all its power at sea level, it could hit 287 mph. (72)

(73)

Racers

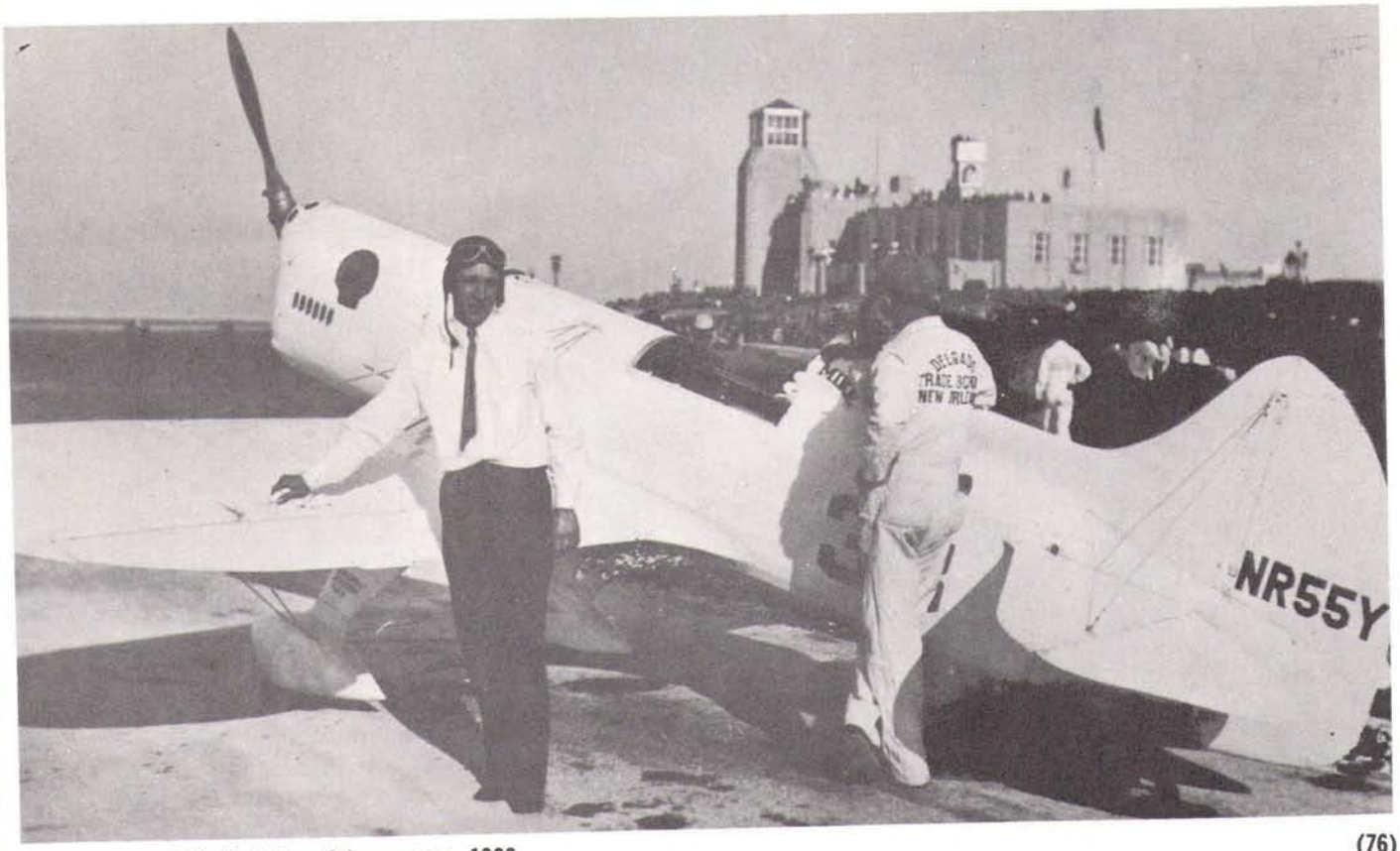
HAROLD NEUMANN

Harold Neumann is almost a living legend. He not only typified the racing pilot but was the example-setter. His career now spans 40 years of flying. His association with Clayton Folkerts started his planes on the winning way. His working for Benny Howard led to the conception of *"Mr. Mulligan"* and culminated in a complete sweep of the nationals with Benny Howard planes in 1935 and Folkerts planes in 1936. Neumann finally retired from racing to fly for TWA. This remarkable man's career in racing represented a dash and daring, coupled with extensive knowledge of plane, engine and performance. Had it not been for Harold Neumann, perhaps Folkerts' and Howard's racing planes would not be a part of history today.

Neumann and Mrs. Neumann with first Monocoupe at Miami Air Show in 1933. (74)

"I lived in Davenport, Iowa, and kept my plane there between races and air shows," Neumann recalls. "Paul Bloom was a young pilot who hung around the airport. He followed me around when I was in town and helped me polish my plane, push it in and out of the hangar and miscellaneous flunky jobs. Occasionally I let him fly it and would sometimes take him to races to help me. In September of 1929, I was racing in Chicago. Paul was also along. He wanted to enter the Sportsman's event (amateur) in my plane. I let him. He flew around the first pylon pretty well, but on the second one he clipped it and sent my plane spiraling to the ground. I rushed out and found he was not hurt but my plane was a wreck. Paul felt badly about it, knowing my means of making a living was in crumpled pieces on the ground. The next day, back in Davenport, a man introduced himself as a partner of Paul's. They had a repair and rebuilding service and he felt responsible for my misfortune. His name was Chet Loose (Chet had worked many years at Monocoupe as chief welder and when Monocoupe moved to St. Louis Chet didn't want to go). He offered to repair my plane. True to his word he and Paul rented a truck and went to Chicago to pick up the pieces. Chet knew most of the old factory personnel at the new St. Louis plant and also of a spare Monocoupe

Neumann (left) with "Ike" and Joe Jacobson with "Pete" at an air show in 1934. (75)

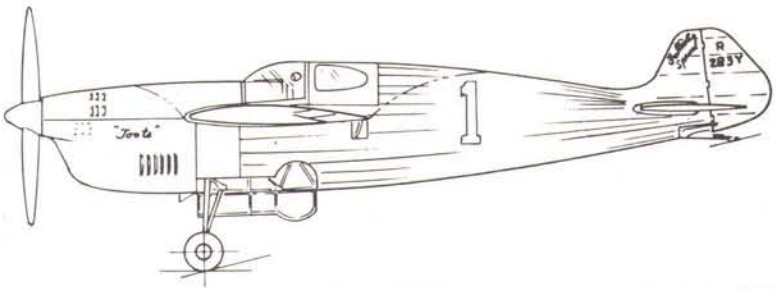


Neumann and "Mike" at New Orleans races, 1933. (76)

fuselage that would fit my plane. He drove to St. Louis and the factory foreman, having heard about my plight, was waiting for Chet.

" 'The fuselage is behind that building and it's yours,' he said. 'We'll help you load it.' Work was proceeding well until it came to the wing. Chet had a Monocoupe wing that could be converted to fit my plane; he suggested we write Clayton Folkerts and perhaps he could come down to Davenport and rebuild the wing. Clayton was only farming at the time, having chosen not to go to St. Louis with Monocoupe. He answered our letter promptly and agreed. I would pay him $.75 a day. In about a week he appeared pulling a small trailer behind his car. He lived in this trailer right on the field in order to save expenses.

"Clayton's workmanship with wood was beautiful. His craftsmanship was exacting. He used rather old fashioned methods like plumb bobs, draw knives, chisels, and hand brace and bits. One day he asked me what type of speeds were necessary for a racing plane to win. He had a racer he had built at his farm and wanted to know if I'd be interested in flying it.



(77)

FOLKERTS SK-2 "TOOTS" which Neumann flew at National Air Races in Los Angeles in 1936. Harold placed fourth in the Thompson Trophy race and second in the Greve Trophy event. Below, Clayton Folkers (left) and Harold Neumann. (78)

Racers

This plane was the *Mono Midget* or the *Loose Special.* We won second place in this little midget in the 1932 regional races in Chicago. The little racer of Clayton's was rebuilt in 1932 for the American Air Races in Chicago. We won two events in the re-christened *Folkerts Special.* I later bought this plane from Clayton and joined the racing circuit. This started a long, happy association with one of the true geniuses of aircraft design.

"I knew of Benny Howard's racing activities and had seen his planes raced but had never met him. He was a full-time pilot for the Robertson Airlines, flying a mail plane. He would frequently fly through Davenport on his mail route from Chicago to Moline to Des Moines to Kansas City.

"I saw him sitting alone in a coffee shop in Davenport and introduced myself. To my surprise, he had heard of me before. Our acquaintance grew. I made it a point, whenever he was in town, to talk to him. He finally offered me a job as a racing pilot. I jumped at the chance to work with Benny and be one of a number of full-time racing pilots. Win, lose, or draw I would still get a weekly pay check. My first regular job since I had started flying."

The rest is history. Harold Neumann and Benny Howard teamed up in 1935 to score the biggest triumph in air racing: the Thompson, Bendix and Greve Trophies.

Today, Neumann lives with his wife, Inez, in Leawood, Kansas, a suburb of Kansas City. His days of racing around pylons in clip-wing bombs are over, but he delights air show crowds by recreating the color and excitement of the early-day races with his *Monocoupe.* Painted all-white to resemble *Mr. Mulligan,* Neumann's trim two-placer shaves imaginary pylons and goes into an aerobatic routine that leaves spectators gasping. Jim Harvey, president of the Monocoupe Club, recently referred to Neumann's ship as the "white tornado."

FAR LEFT

Neumann props the Monocoupe before beginning his pylon racing and aerobatic exhibition at Richards-Gebaur AFB, 1968. (79)

UPPER LEFT

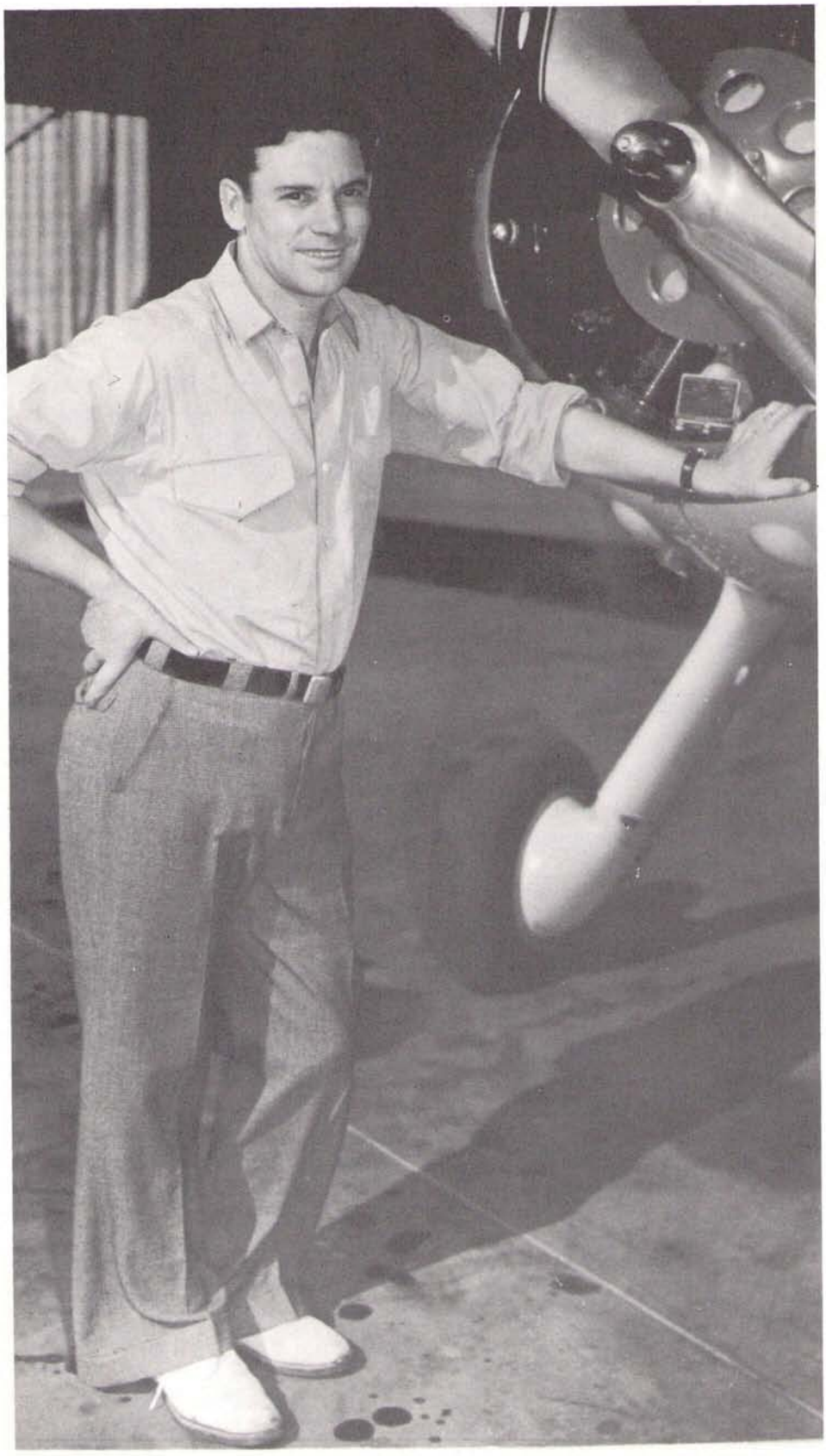
Banking steeply, he scrapes by a "pylon" marker in an exhibition of speed-flying, 1930's style. (80)

ABOVE

Then into a series of aerobatic maneuvers. Here's how it looks from upstairs. (81)

RIGHT

Monocoupe at rest, showing off its graceful lines at Ottumwa, Iowa Antique Airplane Association national fly-in. (82)



JACOBSON IN 1939. Three years after crashing Mike and the year after placing in Thompson and Greve races, Joe was doing skywriting in Omaha for a romantic sign painter. He left in a hurry after being warned of an angry father – $125 to the good. (83)

JOE JACOBSON

Joe Jacobson was given a flying course by his uncle at the Bennett Flying School in 1927. After he had received only three hours of lessons, the school went broke. But three hours were enough to give Joe the flying bug. Working part time at the Tuxhorn School repair shop in exchange for flying lessons, Joe finally got his license. He rented planes when he had money, and hopped rides, entered contests, ferried planes — anything to build time and to perfect his chosen profession. He helped repair and rebuild planes and engines between time, and then went into barnstorming, aerobatics and racing. In time, Joe began to attract attention, and he entered national contests. He won fourth place honors in the 1935 Thompson Trophy race, piloting Benny Howard's *Mike*.

Then came a turn of bad luck. In 1936, Joe smashed *Mike* at Los Angeles in a spectacular crash. The same year in the Bendix cross-country race, Joe flew a *Northrop Gamma*. Over Girard, Kansas, Joe pushed the engine a little too hard, and the plane blew up. Joe parachuted to safety with only minor cuts.

In 1938, Joe placed sixth in the Thompson race, piloting the *Rider R-6 "Eight Ball."* The same year, he took third in the Greve Trophy race in the same racer.

In 1939, Clayton Folkerts, noted race-plane builder, was sufficiently impressed with Jacobson's ability and opinions to truck his *SK-4 "Speed King"* to K.C. for final assembly and testing. The plane was put together in a rented hangar at Municipal Airport, and Folkerts set September 1 as the test-date. Jacobson was to be the pilot. It had rained hard the night before, and although the weather had cleared, the field had wet spots near the end.

With some pomp and ceremony, the little racer was rolled out, gassed, and inspected. The testing began. Harold Neumann and a few other pilots came over to witness the event. Joe started

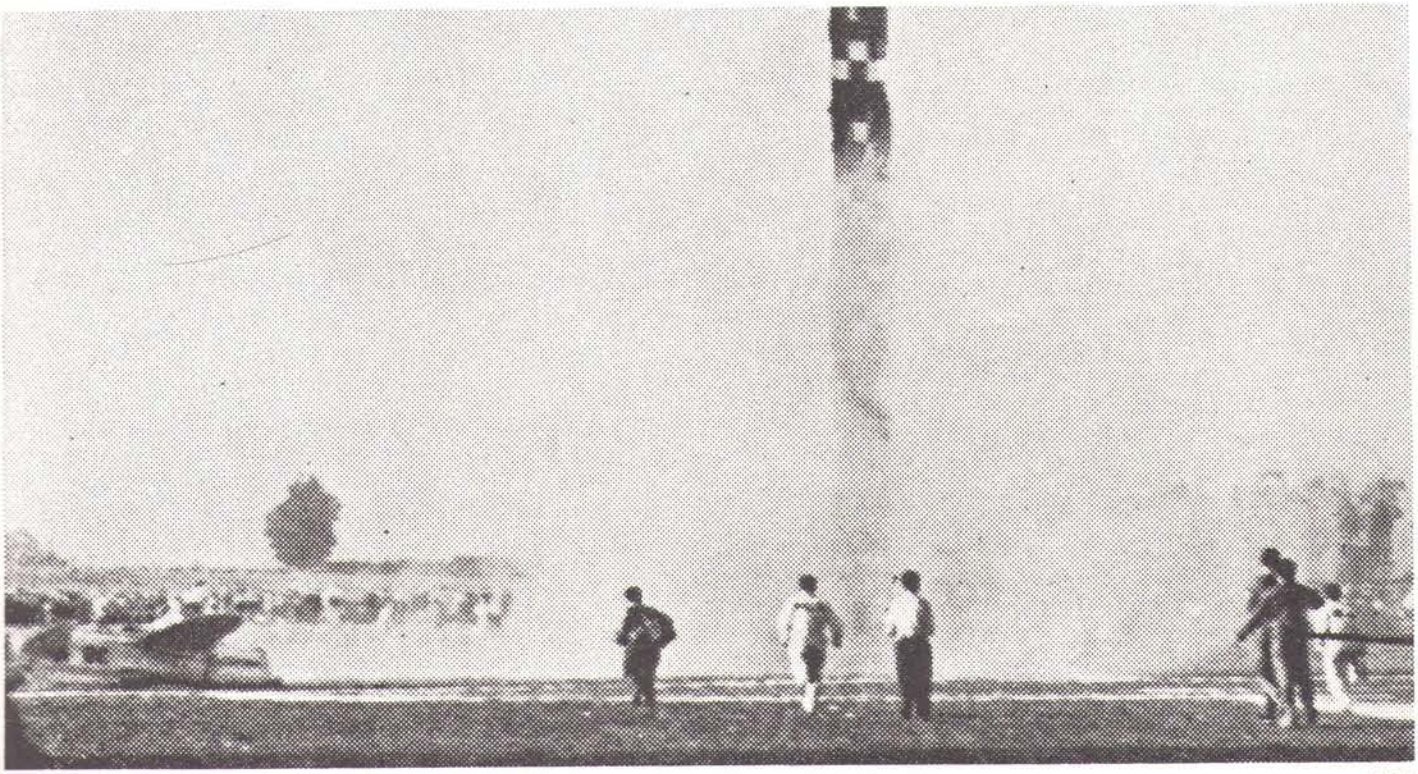
RIDER R-6 "8-Ball" (84)

JACOBSON AT LOS ANGELES IN 1936. (85)

the engine, checked the controls and taxied in position for takeoff. He had noticed a puddle of water at the end of the runway, but planned on being airborne before reaching the spot. Joe waited for the engine to reach full rpm before making his take-off roll, then signaled for release of the wheel chocks. Gunning the big 400-hp Menasco, Jacobson zoomed down the runway, closer and closer to the puddle. Still he wasn't airborne. Then he hit the water. A tremendous *boom* was heard as water, steam, oil and grease converged in a large cloud, then slowly cleared. The crowd rushed to the end of the field to see what was left. They found nothing. The plane had hit the water at great speed and with tremendous force. It looked as if everything — including Joe — had completely disintegrated. Not even a fragment of plane or pilot remained.

Suddenly Joe appeared, coming in for a landing. He had hit the puddle, bounced up and over the dike which surrounded the field, and half stalled over the river on the other side, out of view of the alarmed crowd. Then he had mushed through the air until he could lower the Speed King's nose and gain flying speed.

When the plane rolled to a stop, Joe pried himself from the cockpit, shouting such profanity that no one could doubt his opinion of the racer. He never flew it again. Folkerts eventually got another veteran Kansas City pilot — Delbert Bush — to fly the plane. Bush was killed in August at Cleveland, qualifying for the Greve Trophy race with an average speed of 350 mph.



CRASHING IN "MIKE" at 1936 Los Angeles nationals. (86)

BILL ONG, AIR RACER AND BUSINESSMAN

William A. Ong learned to fly in 1926. The day after he soloed, he made $87 taking up passengers. From then on, Bill Ong would be an aviation businessman to be reckoned with. He became a sales manager and later an executive of a flying school. He organized Jimmy Allen aviation clubs, wrote a book on flight training, and conceived a plan of model airplane meets.

In the thirties, Ong raced planes for Benny Howard, Inland, and others, participating in six Thompson Trophy races. But he had a wife and two sons, and he quit racing to enter the insurance business as an advertising manager. This job lasted about eight months. Then he got a chance to race in Los Angeles. On the way to the coast, however, he cracked up the airplane. Bill then went to Wichita to become sales manager for Beech.

In 1937 he organized the Ong Aircraft Company with the aid of a group of Kansas City friends and an Oklahoma oil man. Working at Municipal Airport, they built a high-wing 4-passenger monoplane designed to sell for around $6,000. The builders put $50,000 into the project, along with several months of hard work. Named the *Continental*, the ship was test-flown by Ong on May 11, 1938. It flew beautifully. But the company was broke.

Bill bought a Piper Cub and started a school and sales agency. As the Civilian Pilot Training Program got underway in 1939, Bill was awarded a contract to train students from Rockhurst and junior colleges in Kansas City and Wentworth military academy cadets at Lexington. Later, Bill went to Emporia, Kansas and worked out a lease arrangement with the city, enabling them to build an airport. Similar arrangements were made at Marshall and Warrensburg, Missouri. Bill's efforts paid off two ways. He helped establish new airports throughout the midwest, and his backers slowly recouped every penny they had invested. During the war, Ong's company trained 7,200 pilots.

ONG at Fairfax, 1929. (87)

In 1946, Ong won second place money in the Sohio race at the National Air Races in Cleveland. His *Mustang P-51* covered the 240-mile race course at an average speed of 345.8 mph.

Bill Ong founded the Aero Club of Kansas City and served as president for three terms. He also organized the local OX-5 club chapter and served as national governor for one term. He founded the Aviation Trades Association, is a charter member of the Professional Racing Pilots Association, and a former vice president of the National Aeronautics Association. In 1960, Ong was named Aviation Man of the Year, and in 1967 he was chosen president of the Richards-Gebaur Air Force Base Community Council.

KANSAS CITY RACING PLANES AND PILOTS

Compiled by Nat Cassingham

THOMPSON TROPHY RACE – 20 laps, 100 miles

YEAR	PILOT	PLACED	LICENSE	AIRCRAFT	ENGINE	AVG. SPEED
1930	B. Howard	3	NR24	Pete	Wright Gypsy, 90-hp	162.8
1931	B. Howard	6	NR24	Pete	Wright Gypsy, 90-hp	163.5
1931	W. Ong	7	–	Laird Speedwing	Wright J-6-9, 330-hp	153
1932	W. Ong	7	NR564	Howard DGA-5 Ike	Menasco, 160-hp	191
1934	H. Neumann	4	NR564	Howard DGA-5 Ike	Menasco, 225-hp	207
1935	H. Neumann	1	NR273Y	Howard Mr. Mulligan	P & W Wasp, 830-hp	220
1935	J. Jacobson	4	NR55Y	Howard DGA-4 Mike	Menasco, 225-hp	209
1936	H. Neumann	4	NR283Y	Folkerts SK-2	Menasco, 225-hp	233
1938	J. Jacobson	6	NX96Y	Rider R-6 "8-Ball"	Menasco, 400-hp	214

BENDIX TROPHY RACE – 2,000 miles cross-country

1931	B. Blevins	3	–	Lockheed Orion	P & W Wasp, 450-hp	189
1935	B. Howard	1	NR273Y	Howard Mr. Mulligan	P & W Wasp, 830-hp	238

GREVE TROPHY RACE – (distance varied)

1934	H. Neumann	3	NR56Y	Howard DGA-5 Ike	Menasco, 225-hp	211
1935	H. Neumann	1	NR55Y	Howard DGA-4 Mike	Menasco, 225-hp	212
1936	H. Neumann	2	R283Y	Folkerts SK-2	Menasco, 225-hp	225
1938	J. Jacobson	3	NX96Y	Rider R-6 "8-Ball"	Menasco, 400-hp	218

AIRCRAFT BUILT, TESTED, OR COMPLETED IN KANSAS CITY

AIRCRAFT	DESIGNER	AIRCRAFT	DESIGNER
Inland	M. Bauman	Mike Ike Mr. Mulligan	B. Howard
SK-1, SK-2, SK-3, SK-4	C. Folkerts	R-6 Eight Ball	K. Rider
Monocoupe Specials	C. Folkerts		

Manufacturers

AMERICAN EAGLE

Ed Porterfield was a man of action. In one year, 1925, he learned to fly, established a flying school, and began an aircraft company. Such is the stuff on which American aviation was nourished.

Born November 7, 1890 at 1029 Brooklyn Ave. in Kansas City, Ed was the son of E. E. Porterfield, Sr., a judge of the circuit court from 1907 until he died in 1933. Judge Porterfield established the juvenile division of the court.

Young Ed always had an interest in things mechanical. As an army recruit at Camp Funston, Kansas, he was assigned to be General Leonard Wood's chauffeur because of his ability to drive a car. When he wasn't driving, Ed spent his spare time hanging around the Air Service flying field, watching the airplanes landing and taking off. Like many of his contemporaries, Ed Porterfield dreamed of flying.

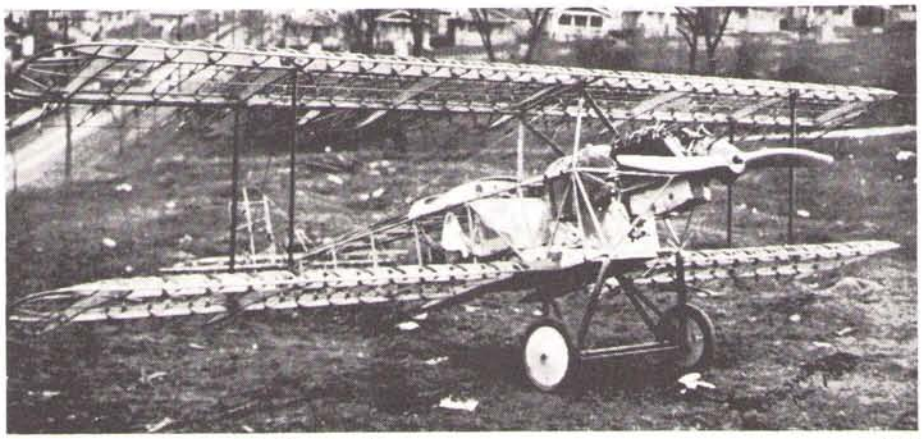
When he got out of the Army in 1919, Ed opened a Ford dealership in Kansas City. Things went well, and within a few years Ed owned the largest automobile dealership in town. Then in 1925, a man walked into Ed's showroom and changed the course of Ed's life and many others. His name was Blaine Tuxhorn, a barnstormer from St. Joseph. These were the days of champaign and hamburgers for barnstormers, and this was one of Tuxhorn's hamburger days. But he needed an automobile. After an afternoon of dickering, Tuxhorn emerged from Porterfield's sales office. He had his automobile, a used 1923 Model-T. Ed Porterfield had what he wanted, too: a course in flying, courtesy of Mr. Tuxhorn.

The training plane was a Curtiss JN4D *"Jenny"* and the course was haphazard. In those days, a student pilot soloed when his instructor was too hoarse to scream at him from the rear cockpit. There was no set procedure for training, and no licensing. Ed Porterfield saw the need for something better, and on July 4, 1925, the Porterfield Flying School was opened at Richards Field. Training planes were *Lincoln Standard J-1's*, similar to *Jennies*. Students at the Porterfield Flying School went through a rigid training program which included ground school.

But the tail-heavy *Standards* were far from ideal student ships. Ed wanted a better plane for his flying school. None was available, so he decided to build his own. The result was the *American Eagle A-1*, built in a rented garage on Prospect avenue. Many hands pitched in to build the first plane, and there are discrepancies as to its origins. L. G. "Bick" Bichelmeier, a welder who worked for Porterfield at the Ford agency, served as shop foreman. The original design came from either Waverly Stearman (brother of Lloyd) or R. T. McCrum, who was quite active in biplane construction at the time (see *HISTORIC AVIATION*, September and October, 1969). At any rate, the original prototype was built, much of the labor coming from students at the flying school. Engine was the OX-5. On April 9, 1926 the plane was test-flown by school instructor Larry

ED PORTERFIELD (88)

LARRY RUCHS (89)



AMERICAN EAGLE NO. 1 before covering. (90)

Ruchs. Within a week, a dozen orders came in. Ed Porterfield was in the airplane business.

More orders came in, and the American Eagle Aircraft Corporation moved to a larger building at 2330 Harrison Street. This was in June, 1926. It had only been nine months since the company was founded. More than a hundred airplanes would be built at the Harrison Street location.

In March, 1927 another move was made, this time to 2800 East 13th Street. This time the move was necessitated by 130 orders for the popular biplane. Another 105 planes were built at the 13th Street location during the following year.

Then the Government got into the airplane-building picture, with the Department of Commerce requiring the licensing and inspection of all aircraft. In order to meet the requirements for the Approved Type Certificate, the A-1 was modified slightly. The new model was called the A-101.

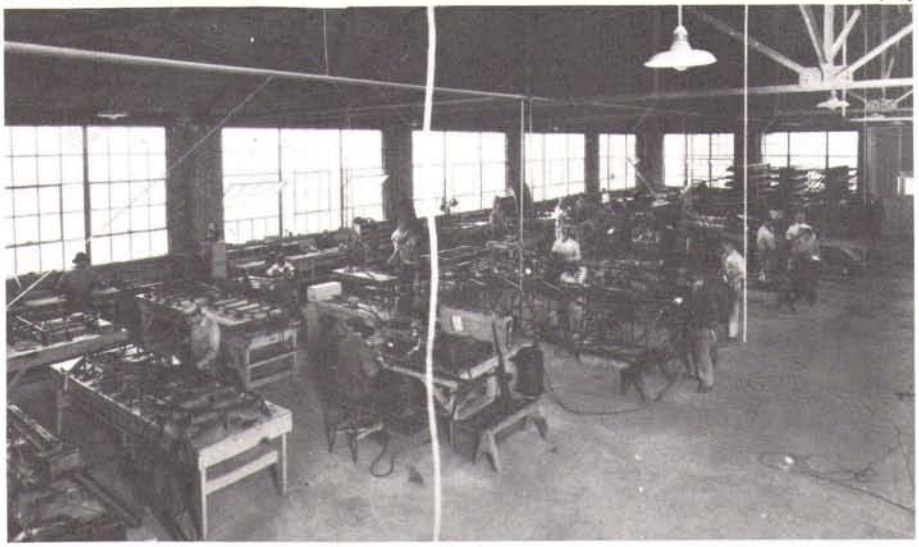
It was time to expand. Porterfield sold 48 percent of the stock in the American Eagle Corporation to A. A. Durant, of General Motors. With fresh capital, he built a new brick building in Kansas City, Kansas, across the street from Fairfax Airport. Then he went on a cross-country promotion tour with ten A-101'2 and lined up dealerships across America. Seemingly, everything he touched turned to profit. Orders rolled in, and the force was increased to 115 employees. Famous auto racer Barney Oldfield joined the Board of Directors. Ed Porterfield and his busy crew were looking forward to a bright future.

Then came trouble. A rash of fatal accidents involving A-101's broke out across the country, and the Department of Commerce threatened to ground the aircraft. It was found that the A-101 was spin-prone, and Ed Porterfield picked one of the top designers in the buiness, Guiseppe Ballanca, to redesign the ship. Bellanca lengthened the nose, strengthened the fuselage, enlarged the rudder, and added ailerons to the bottom wings. This was the A-129, first built in December, 1928. A total of 400 were built.

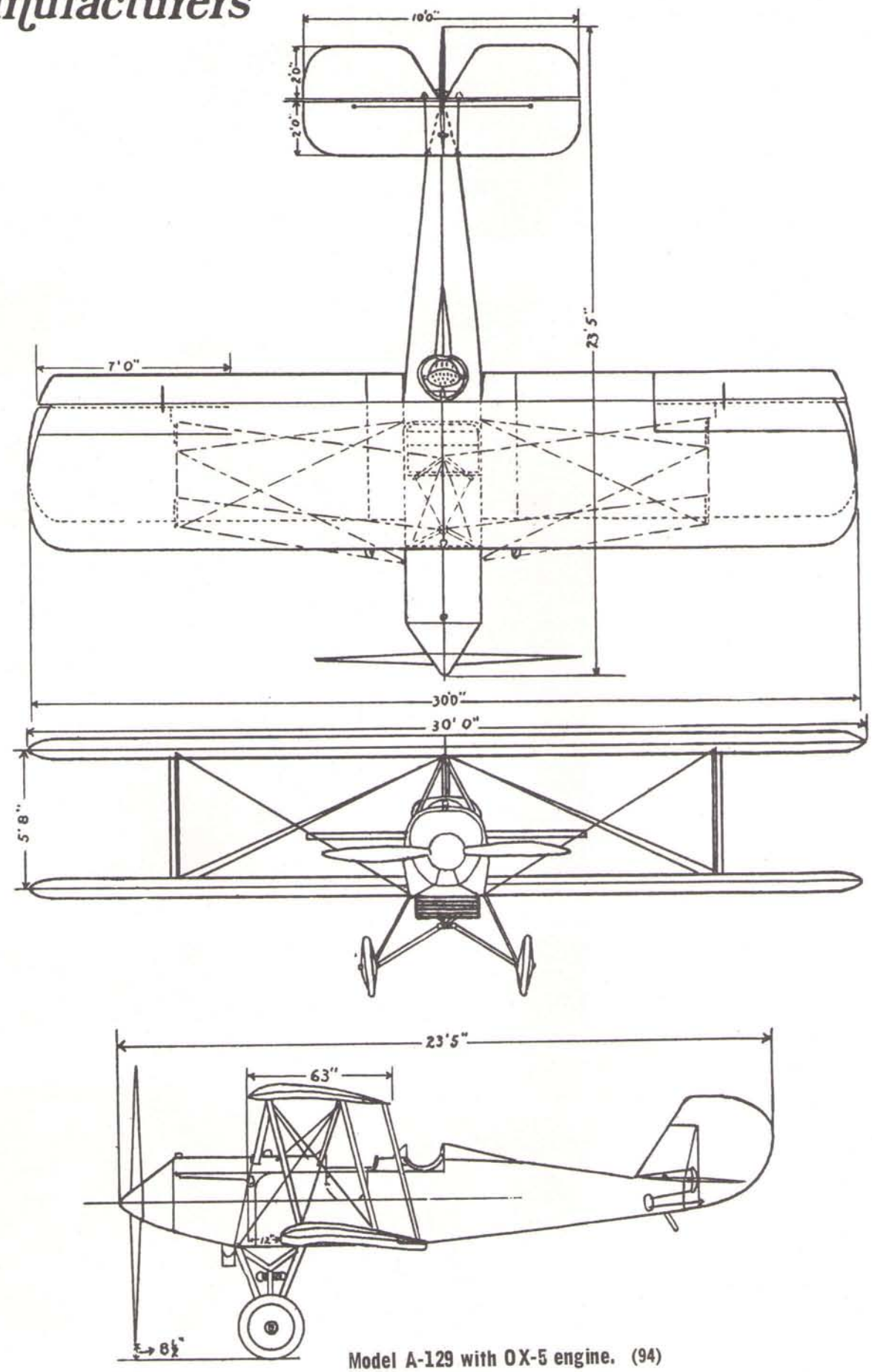
(continued on page 58)

AMERICAN EAGLE factory workers and management staff in front of plant at 13th and Harrison, Kansas City, Mo. (91)

AFTER MOVE TO FAIRFAX AIRPORT, company built factory across street from Porterfield Flying School. Completed airplanes were wheeled across street to airport. (92)



WELDING DEPARTMENT OF NEW PLANT was among the most up-to-date in the country. (93)



Model A-129 with OX-5 engine. (94)

"ANTEATER" was nickname for A-129 with Kinner engine, which required lengthened nose to compensate for reduced weight. Aircraft pictured above belonged to Del Erhart, Lawrence, Kansas. It was destroyed by fire in 1967. (95)

ANDY ANDERSON, prolific restorer in Mansfield, Missouri, flies early-model A-129, built in Kansas City, Missouri before the move to Fairfax. (96)

Manufacturers

AMERICAN EAGLE

(continued from page 55)

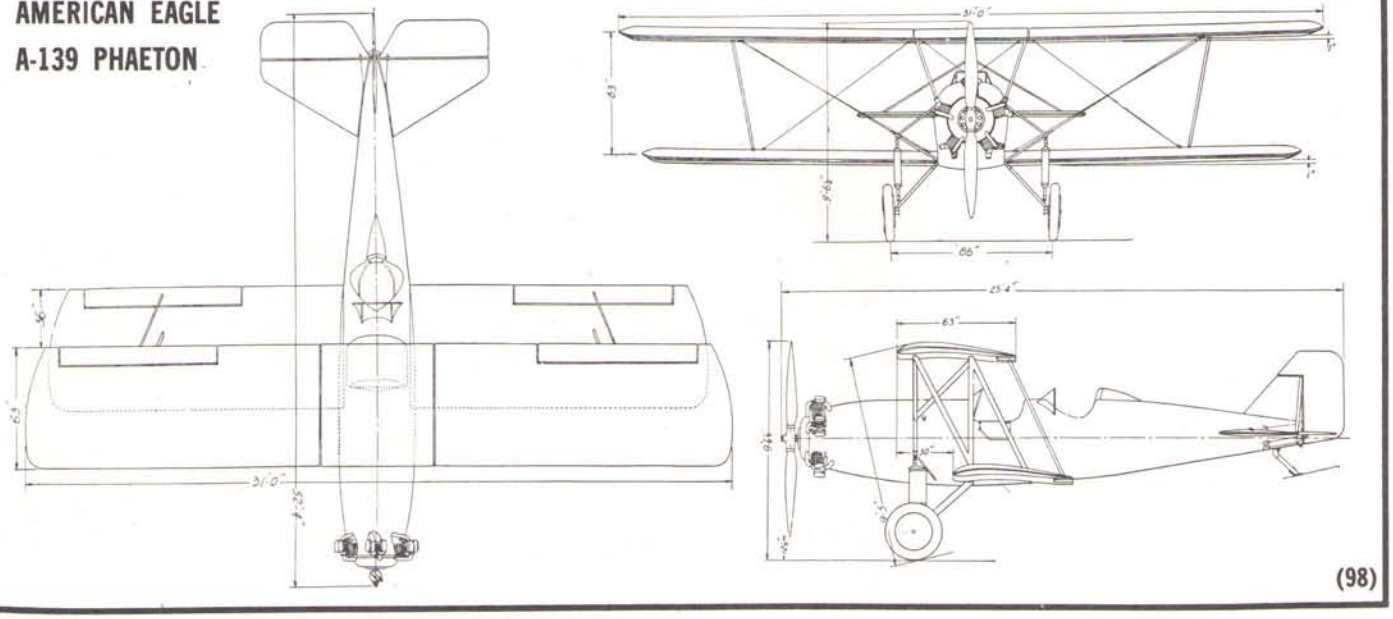
Staff engineer Jack Foster designed an airplane in the fall of 1928 which was probably one of the top *American Eagle* designs. Designated the A-201, it was powered by the 100-hp Kinner 5-cylinder radial engine. Its performance was extraordinary. It boasted a stall speed of 30 mph and a cruise of 115 mph. In addition to the prototype, 4 more A-201's were built at Fairfax. But no orders came in. Then Foster modified the ship to take the 200-hp Wright J-4, and used the re-designed ship as a racing plane, both with clipped wings and full-length wings. Next, Foster used a 180-hp Hisso water cooled engine to a second airframe, similarly modified. This model became the A-139, and was called the *"Phaeton."* Only 24 were built during the next nine months.

As the American Eagle corporation expanded, two companies were purchased, the Wallace Airplane Company and the Crescent Propeller Company, both of Chicago. The Wallace Company had produced the Wallace *Touroplane*, and this aircraft became the *American Eagle Model 330*. It was a Kinner-powered 3-place cabin monoplane with folding wings. A later model, the *D-430*, was modified to carry four persons, and was powered by the 165-hp Wright J-6. Another version, the *E-430*, used the Continental A-70 engine.

A. K. Longren of Topeka, Kansas had built a folding-wing biplane, and this was purchased by American Eagle and designated the A-429. Offered with the 40-hp Szekely or the 60-hp LeBlond engines, the A-429 was fully aerobatic. It was a 2-place ship, with side-by-side seating. There is no record of any A-429's being produced or sold by American Eagle.

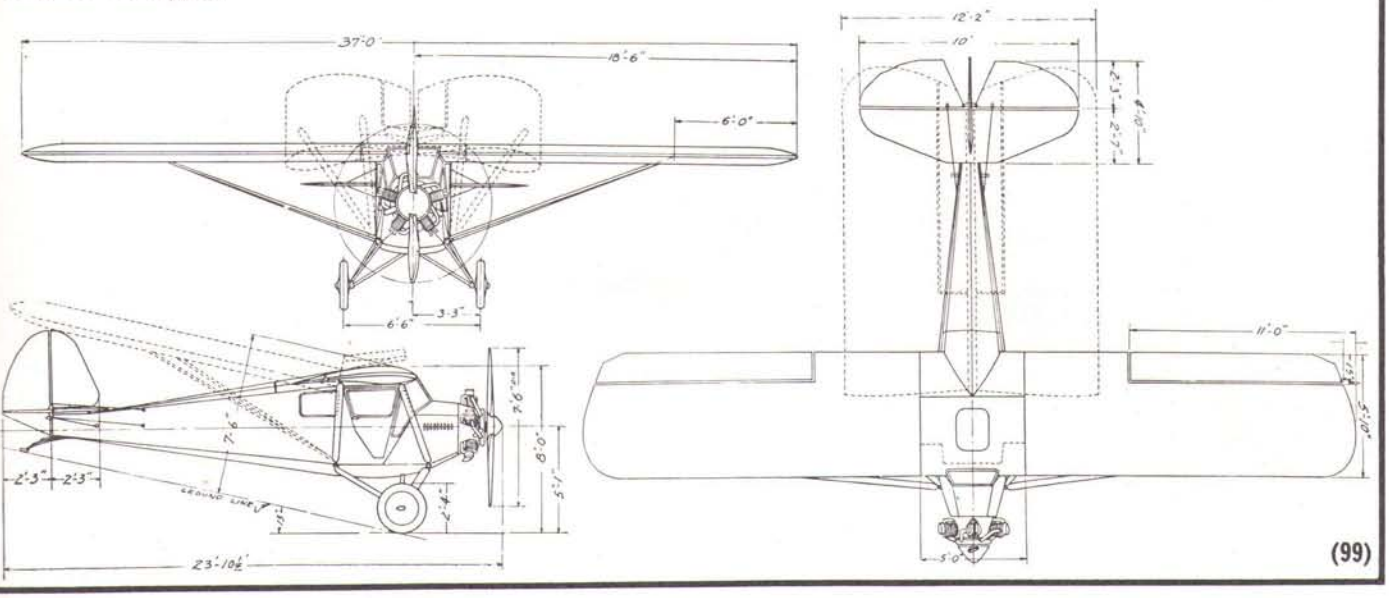
PHAETON IN FLIGHT (97)

AMERICAN EAGLE
A-139 PHAETON



(98)

Wallace Touroplane



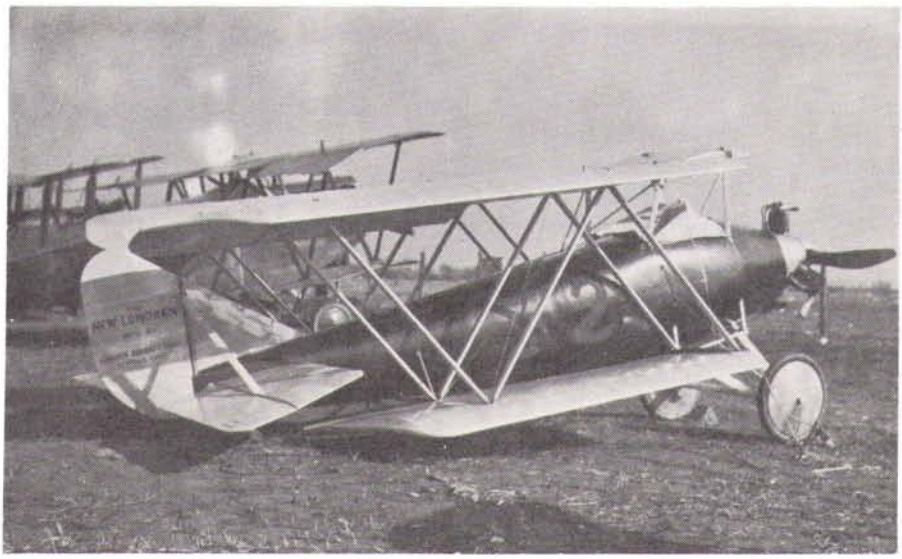
(99)

In November, 1929, disaster struck American aviation in the form of the Great Depression. Money tightened to the point that only essentials were bought. And to most Americans, an airplane was not an essential. Ed Porterfield, seeing his plant operations grinding to a halt, tried a last-ditch effort to stay solvent: the company would build a $1,000 airplane. All the engineers worked at the problem. But Noel Hockaday, from the Wallace firm, came up with the winning design. It was a simple, parasol-wing monoplane, weighing less than 500 pounds. They named it the *American Eaglet*. By the time the last one was built in July, 1931, 67 had been sold. During the same month, Ed Porterfield sold his controlling interest in American Eagle to A. A. Durant.

And so the curtain came down on the American Eagle Aircraft Corporation. Durant merged his new company with the Lincoln-Page Aircraft Company of Lincoln, Nebraska, and hired Porterfield as general sales manager. Porterfield resigned in 1932, and the company later dissolved.

There were more than 700 *American Eagles*, and at one time the company ranked third in the production of commercial aircraft. Ed Porterfield was one of aviation's most dynamic promoters. He devoted much of his life to aviation. His airplanes will be remembered.

LONGREN SPORT BIPLANE became the American Eagle A-429. (100)



LONGREN'S FOLDING WINGS proved a convenient feature, as this earlier model shows. (101)

Ah, for the simple days

. . . when flying was by dead reckoning and airplane advertising was soft sell. Readers of HISTORIC AVIATION will recognize this photo, which has to be one of our favorites. The airplane is the Wallace "Touroplane," later to become the American Eagle 330. The ladies are unidentified.

(102)

Model 333 was to be American Eagle's cabin replacement for 3-place biplane. (103)

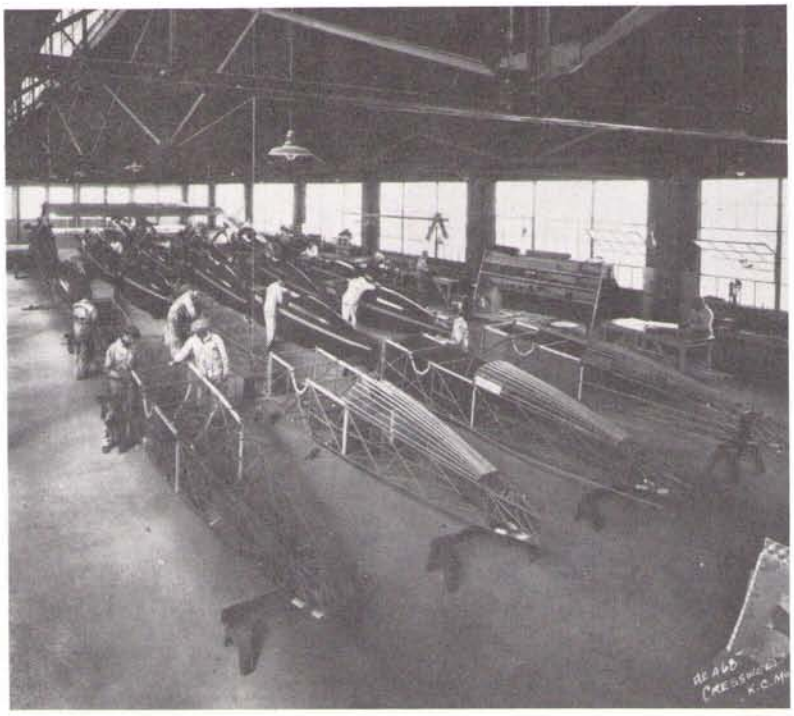
WINGS FOLDED for easy towing, storage. (104)

SEE 3-VIEWS, PAGE 59.

Manufacturers

THE AMERICAN EAGLET

In a last-ditch attempt to avoid bankruptcy, American Eagle produced the EAGLET, and managed to sell 67 of the 500-lb. monoplanes before the curtain came down. Powered by a variety of small engines, the EAGLET was designed by Noel Hockaday and sold for $1,000. The last one was built in July, 1931. Photo at right shows the Fairfax assembly plant. Below is the EAGLE, at Fairfax airport.



(105)

(106)

KEN-ROYCE BIPLANE was first Rearwin product, excelled as a short field airplane. (107)

(108)

THE REARWIN STORY

Born in Rushford, N.Y. in 1878, Rae Andrew Rearwin moved with his parents to a farm northeast of Lincoln, Kansas when he was a small child. He grew up doing farm work, and broke wild horses to earn money for college. He attended Kansas Wesleyan sity at Salina. In 1906 he married a Salina girl, Leila Sudendorf, and gave up a successful sales career with International Harvester to learn the lumber business from his wife's father and grandfather in Salina. In 1915, he opened his own lumber and building material business in Salina. The business prospered and by 1926 a three-story brick ware

Born in Rushford, N.Y. in 1878, Rae Andrew Rearwin moved with his parents to a farm northeast of Lincoln, Kansas when he was a small child. He grew up doing farm work, and broke wild horses to earn money for college. He attended Kansas Wesleyan University at Salina. In 1906 he married a Salina girl, Leila Sudendorf, and gave up a successful sales career with International Harvester to learn the lumber business from his wife's father and grandfather in Salina. In 1915, he opened his own lumber and building material business in Salina. The business prospered and by 1926 a three-story brick warehouse had been added.

In 1927, inspired by Lindbergh's flight, Rearwin became interested in the airplane business. He tried to acquire stock in Wichita aviation firms, but failed. In 1928, at the age of 50, R. A. Rearwin began construction of the *Ken-Royce* biplane, named for his two sons. It was a three-place open-cockpit airplane with amazing speed and climb, perhaps the best-performing three-place commercial biplane ever built in its horsepower class. It won first place in the Miami-Miami Beach-Cleveland Derby at the 1929 National Air Races. In Tulsa, it took first place at the 1929 Petroleum Convention Air Races. And in the 1929 Kansas Air Tour Races it took 51 first places.

R. A. REARWIN. Aviation pioneer began career at age 50, left heritage of performance-aircraft.

Powered by the Curtiss Challenger engine, the plane had a top speed of 142 mph and could land as slow as 35 mph.

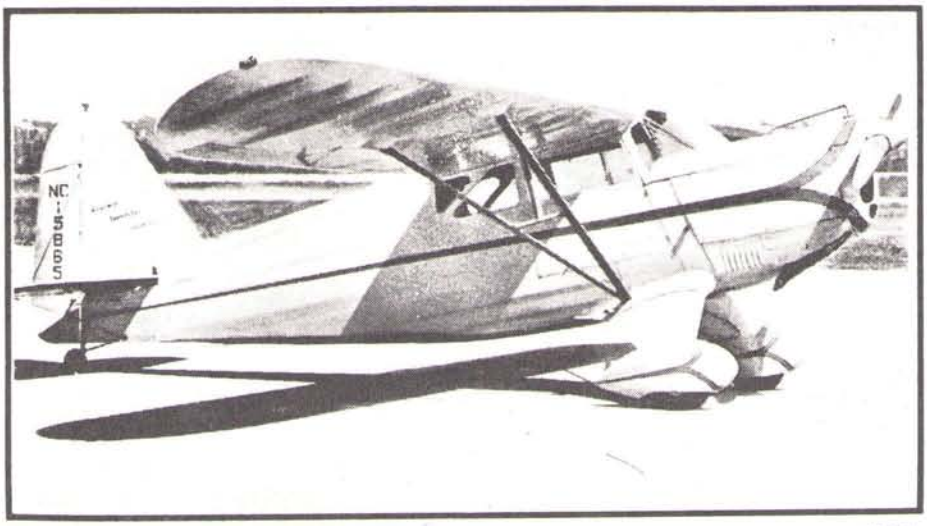
Faced with a lack of experienced labor, Rearwin left Salina in 1929, and moved to Fairfax Airport in Kansas City, Kansas. Between 1929 and 1942 the company would occupy three successively larger plants on or adjoining the airport, producing biplanes and monoplanes and later, engines.

In 1935, Rearwin produced the *Speedster*, with the 95-hp Cirrus or 125-hp Menasco engines, and the *Sportster*, powered with the 70-hp or 85-hp LeBlond. Although popular with the model-plane enthusiasts, the *Speedster* never caught on with the flying public, and only six were produced. But with the *Sportster* it was a different story. The 2-place cabin monoplane became a favorite among light-plane buyers, and nearly 300 were built. At the time of this writing, more than 60 have been restored and are still flying.

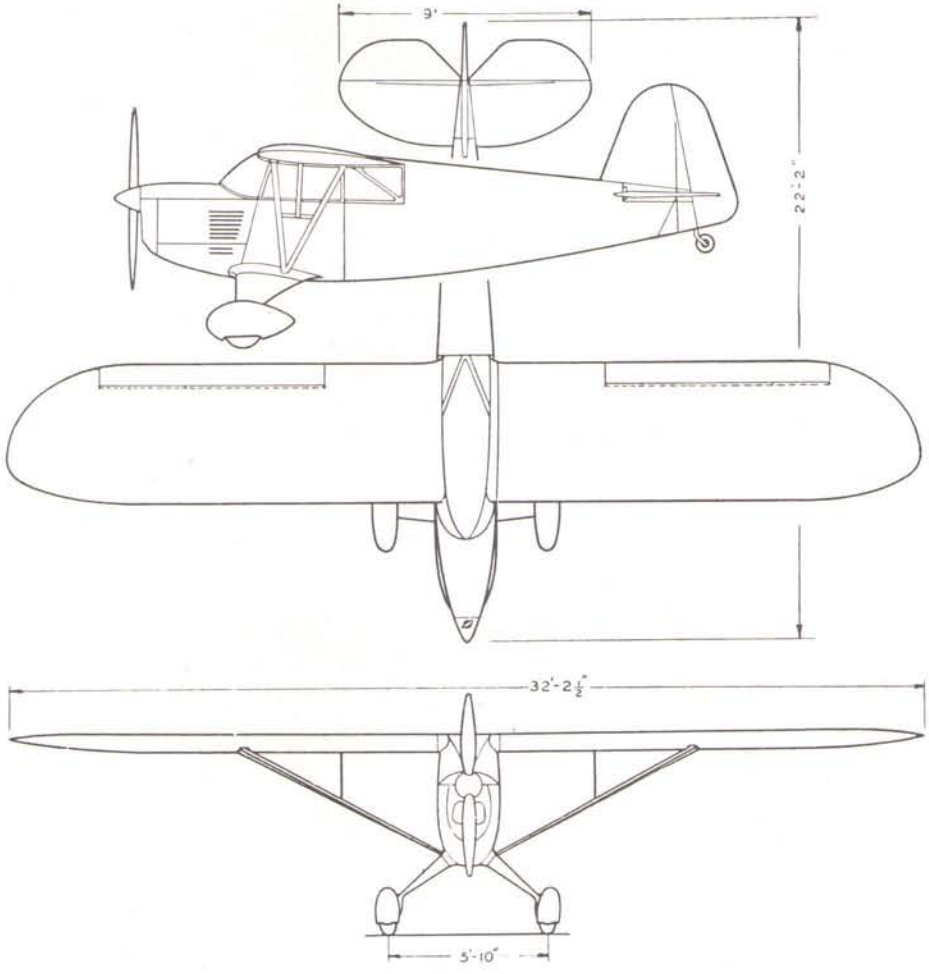
Rearwin acquired the LeBlond Engine Co. of Cincinnati, Ohio, in 1936, and moved it to Kansas City the following year. Thereafter, Rearwin Aircraft and Engines, Inc., manufactured most of the engines for its own use and several other airplane manufacturers.

In 1938, Rearwin produced a new 2-place, side-by-side high-wing monoplane powered with a choice of two engines, the 5-cylinder, 90-hp LeBlond or the 7-cylinder, 125-hp LeBlond. Known as the *Model 8000*, it had dual stick controls, an automatically controlled belly flap, an 80-inch wheel tread, and the ailerons were statically balanced. There was a trim tab on the elevator, an adjustable rudder tab and ball bearings throughout the control system.

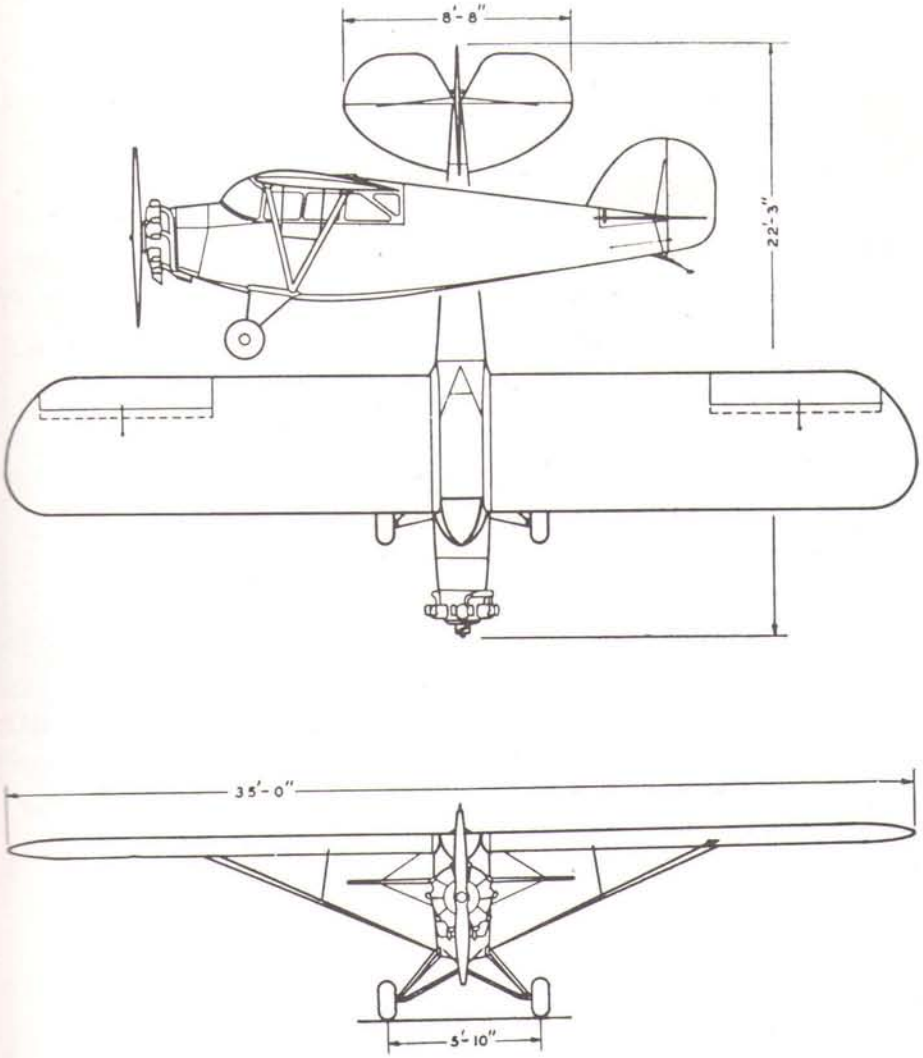
The same year, the *Cloudster 8090* was produced, powered with a 90-hp Ken-Royce engine. Next came the *Cloudster 8135*, with a 120-hp plant. The *Cloudster* models were roomy, 3-place ships with good cross-country characteristics.



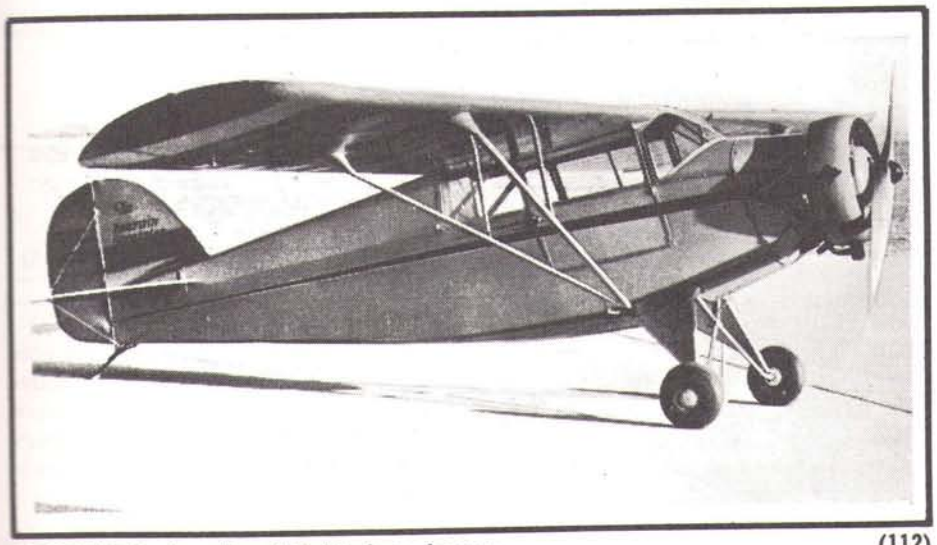
SPEEDSTER, a popular airplane, but only with would-be pilots. (109)



REARWIN SPEEDSTER (110)



REARWIN SPORTSTER (111)



SPORTSTER, favorite of light-plane buyers. (112)

Don Pratt, noted sport and antique aviation historian, points out that "the *Cloudster* is a three place airplane in the true sense and not a stretched two-placer like some later airplanes that accommodate a third person in a makeshift baggage compartment "jump" seat. The cockpit layout is such that the pilot and one passenger sit side-by-side in the front, while a single additional passenger sits sideways in the back. The third seat is placed directly behind the pilot on the left side of the fuselage. The passenger sits in this seat facing the right rear window. The back seat is ample in size, well upholstered, and there is more leg room than provided for either occupant of the front seats."

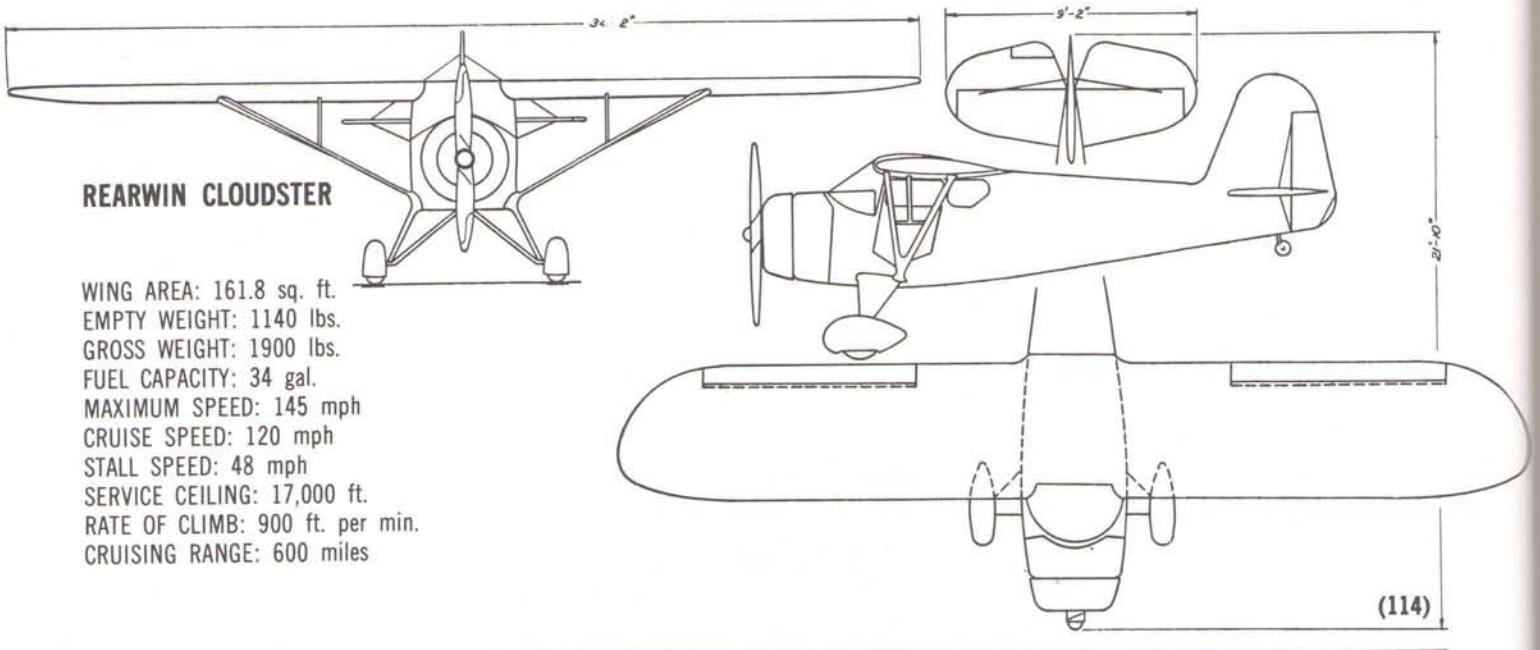
A modification of the *Cloudster 8135* was the 8135T, designed as an instrument trainer in cooperation with Pan American Airways, its major customer. The *Cloudster's* 3-place seating arrangement was changed to a 2-place tandem setup, with an additional instrument panel in front of the rear student seat. The seats were Army type size and adjustable. Major modifications included the placement of two doors on the right side (in place of the single doors on either side of the *Cloudster*), and larger windows for greater downward visibility. The instruments added about 200 pounds to the *Cloudster's* weight, with a resultant slight decrease in speed, service ceiling and rate of climb.

Many changes were made in the *Sportster* model. The cowling was redesigned and the windshield was better streamlined, formed with one sheet of material. These changes gave the *Sportster* some 7 mph better performance.

In 1939, work was started on an inexpensive light airplane which would be a Class 2S ship with a gross weight of 1,350 pounds. It was to have wing tanks, wing slots, provision for flaps, power up to and including 75 hp, and allowance for 125 pounds of baggage and extra equipment. There is no record of this airplane going into production.

In 1940, Rearwin was primarily an engine manufacturer, with three *Ken-Royce* models: the 5E, producing 70-hp at 1950 rpm, the Model 50, producing 90-hp at 2250 rpm, and the 7G, producing 120-hp at 2225 rpm.

CLOUDSTER, formerly owned by Noel Gouldsmith, Independence, Mo. (113)



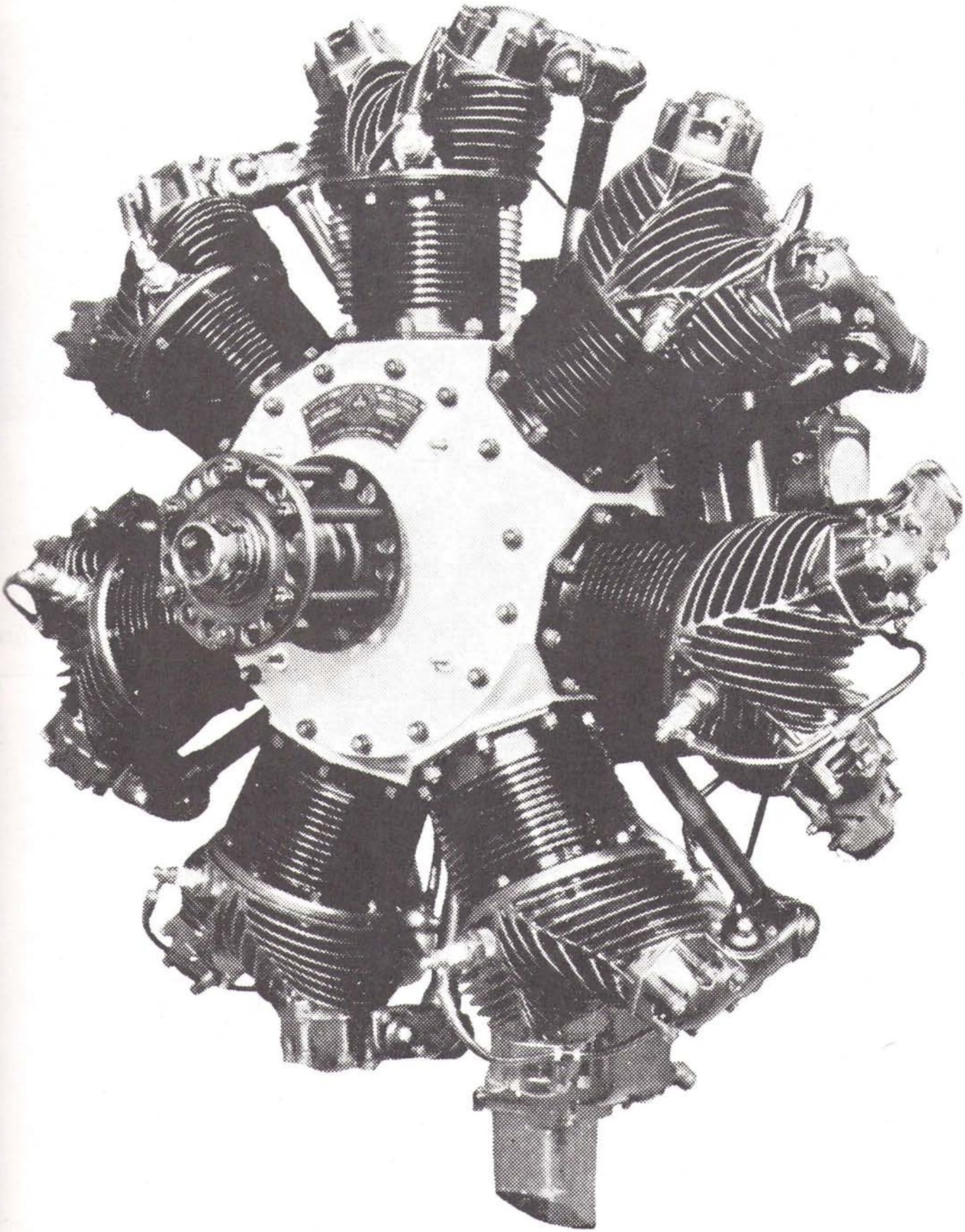
REARWIN CLOUDSTER

WING AREA: 161.8 sq. ft.
EMPTY WEIGHT: 1140 lbs.
GROSS WEIGHT: 1900 lbs.
FUEL CAPACITY: 34 gal.
MAXIMUM SPEED: 145 mph
CRUISE SPEED: 120 mph
STALL SPEED: 48 mph
SERVICE CEILING: 17,000 ft.
RATE OF CLIMB: 900 ft. per min.
CRUISING RANGE: 600 miles

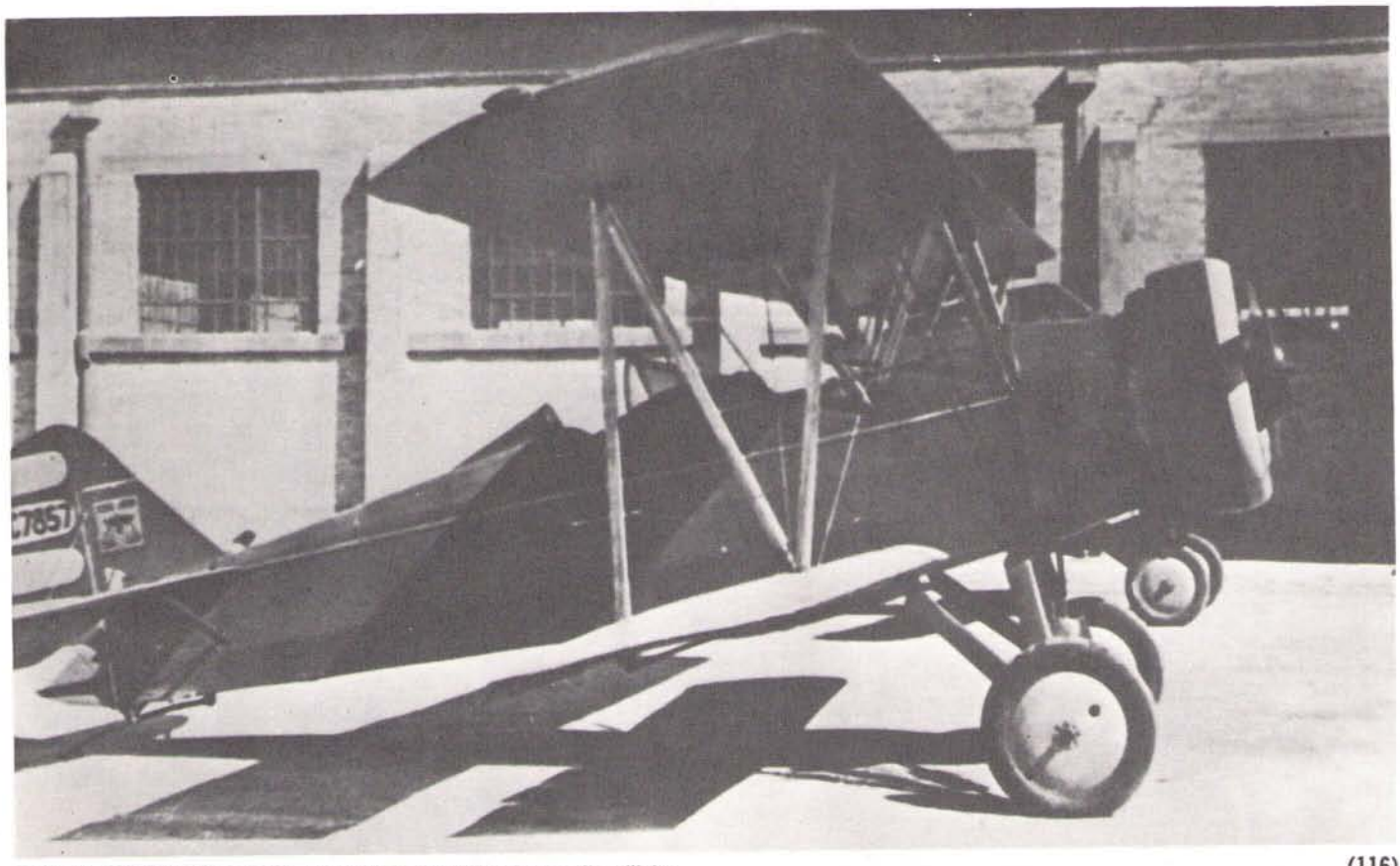
(114)

Early in World War II, the Rearwin firm shifted production facilities to the manufacture of munitions dies and two models of gliders used in the invasion of France in 1944. In October, 1942, Rearwin sold his interest in the company to a group of eastern investors, who changed the name of the company to Commonwealth Aircraft, Inc. After World War II, the company was moved to Long Island, N.Y., and produced about 200 *Skyrangers* — 2-place, side-by-side planes — before closing their doors permanently following a disastrous strike.

R. A. Rearwin moved to California in 1944, and enjoyed an active retirement, becoming involved in civic affairs in Beverly Hills for 25 years. On November 16, 1969, Rae Rearwin died. He was 91.



REARWIN KEN-ROYCE 7G ENGINE (115)



SKYWAY PROTOTYPE was tailheavy, but impressed builders on first flight. (116)

THE BUTLER BLACKHAWK

On Thursday, October 4, 1928, the *Skyway* was scheduled to fly at 3 PM. The day was unusually hot for October — in the 80's — with rain forecast for early evening. The plane was assembled at a rented hanger at Municipal and was towed to Fairfax field in Kansas City, Kansas, for flight testing. Several hundred people were there to watch. Among the crowd was Barney Oldfield from San Francisco, just elected to the board of directors of American Eagle Corp. by E. E. Porterfield, president. Another was Col. Arthur C. Goebel, former World War I Ace, now the successful operator of Goebel's Flying School, located five miles south of Fairfax. Officials of Butler Mfg. Co. were gathered around the plane. E. E. Norquist, president of Butler, told the press that the next plane to be built would be a 4-passenger cabin type. Designs for it had been started.

Howard Jones, a professional test pilot was hired for the flight. The plane performed faultlessly. Jones went through every stunt he knew and breezed in for a perfect three point landing, coming to a halt before the assembled crowd. The *Skyway* was strong, no question about that — and tail heavy. "Wavey" Stearman was congratulated by many. For the next couple of days minor adjustments were made in the rigging, the plane was rolled in and out of the hanger, the engine started and revved up. The builders were very pleased.

Waverly flew the plane two weeks later to Chicago to test its cross-country characteristics and probably to show it to some old friends from Wichita days now in airplane manufacturing there. He reported back to

BUTLER BLACKHAWK

Type Certificate No. 135. Approved April 2, 1929.

3-Place Biplane, with 2 Passengers Side-by-Side in Front and Pilot in Rear.

COST: $8,000 - $10,000, depending on optional equipment.

GROSS WEIGHT: 2,900 lbs.

EMPTY WEIGHT: 1,885 lbs.

PAYLOAD: 510 lbs. with 45 gal. main tank in fuselage; 360 lbs. with two 12½ gal. tanks in wing.

ENGINE: 7 cyl. Wright Whirlwind J-5. 225 hp at 1,800 rpm.

MAX. SPEED: 130 mph, 135 mph with optional steel cover for front cockpit.

CRUISE SPEED: 110 mph

SERVICE CEILING: 14,000 ft.

RATE OF CLIMB: 1,000 fpm

LANDING SPEED: 47 mph

RANGE: 650 miles (11½ gph on 70-gal. tank)

STRESS LIMITS: Minus 6 Gs neg., 9½ Gs pos. (No limitations listed)

K.C. The plane was very stable, flew well and was ready for government certification.

Walton M. Briney, aviation editor for the *Journal Post* newspaper, covered the story. He had learned to fly some years before in the Army Signal Corps. His unit was sent to Mississippi for flight training but before going into combat the war ended. He joined the Army Reserve on his return, flying on weekends only. He hoped to get into aviation and took the newspaper job as a stop-gap.

When he heard that Butler Aircraft Co. needed a salesman he immediately quit his job, joined the company as salesmanager and test pilot. Walt Briney decided to rename the plane *Blackhawk*. It had a nice ring and seemed to fit.

While awaiting the molasses-slow process of certification, there was much work to do. A factory was built on the northeast side of Municipal Airport in Kansas City, Mo. and tools, dies, jigs were moved. The company joined Manufacturing Aircraft Association, a purchasing pool that collectively ordered their raw material and thereby greatly reduced unit costs.

Approved Type Certificate No. 135 was issued to Butler Aircraft Corporation on April 2, 1929. Col. Arthur C. Goebel had been so impressed with the results of the test flight, he purchased the first craft for his own personal use. He flew from Kansas City to Washington in less than 9½ hours. He also flew the plane later from Kansas City to San Antonio, Texas where he ground-looped the plane on landing, damaging the landing gear.

"Hoot" Gibson, famed cowboy movie star, bought one of the first production models of the Butler *Blackhawk*. Walt Briney was taking orders. Someone said the plane looked like a Stearman Trainer. In a sense they were right — if you meant Waverly — but too many people meant Lloyd.

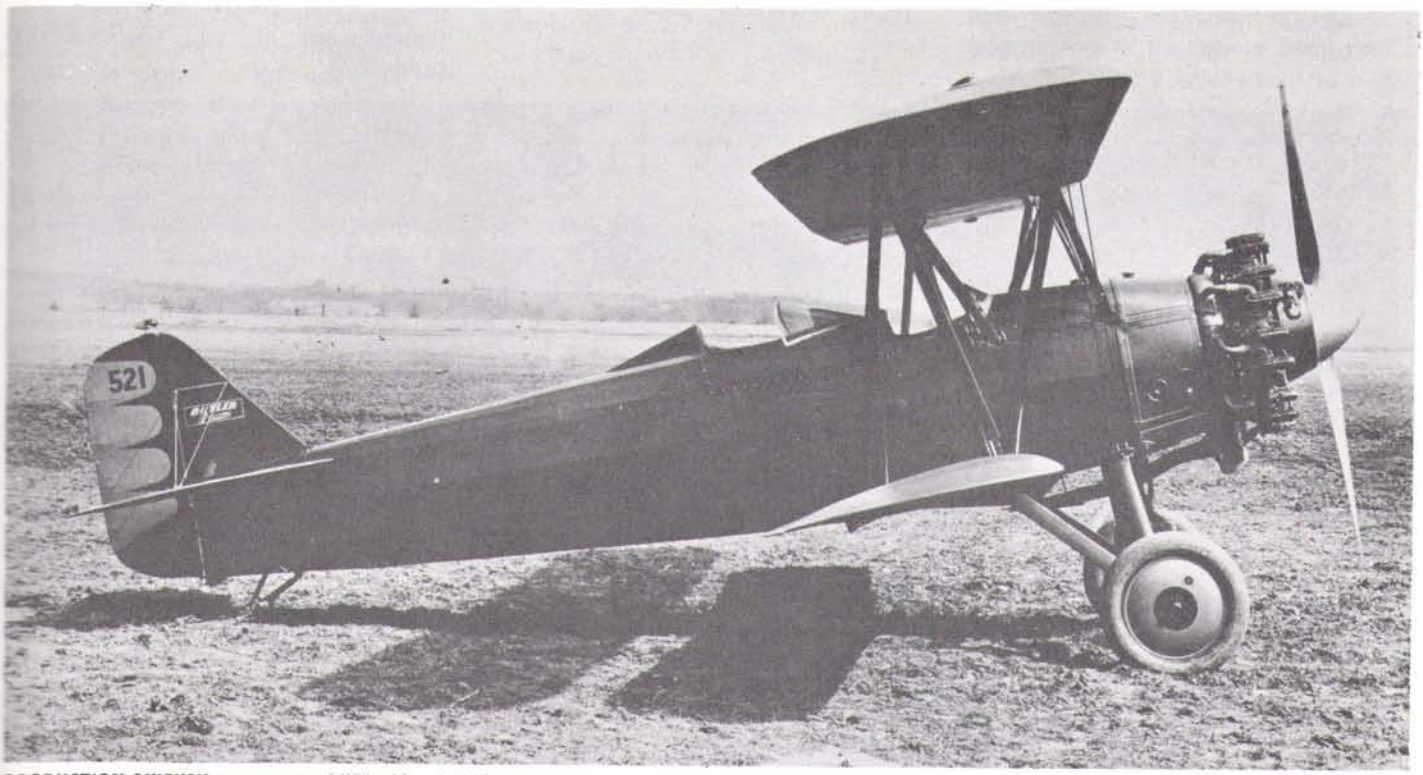
In 1928, aviation business was booming. "Ten thousand people wanted to buy an airplane, and three times that many wanted a ride in one." All aircraft manufacturers had to do was build. Such was the effect of Lindbergh's historic flight of May, 1927.

Two Wichita promoters approached Butler Manufacturing Company of Kansas City with plans for an airplane they wanted built, and cash enough to interest anyone. The big thing was — the designer was none other than Waverly Stearman, brother of Lloyd Stearman, president of Stearman Aircraft.

Waverly would stay in Kansas City and assist Butler in construction and engineering. The blueprints they had were very complete. In the bottom margin was the date, January 7, 1925. The name of the craft was simply "Whirlwind J-5 Airplane." The promoters called it *Skyway*. It had "zing!"

Butler Manufacturing Company was not particularly interested in aircraft production, but a job was a job, and money was money. The company had extensive experience in welding chrome molybdenum steel tubing, which the plans called for. It had some woodworking equipment and complete facilities for ground static testing. There was also a good engineering department.

The company agreed to do the whole job. They would build the jigs necessary for spruce wings, spars, trusses, also cover the craft, mount the engine, and deliver a plane ready to fly. The job was started the middle of July and in sixty days it would be completed.



PRODUCTION SKYWAY was renamed "Blackhawk." Number 521 (above) belonged to Art Goebel. **(117)**

As the plane neared completion, Butler realized the need for more money to complete the craft. Testing stresses, wing building, engine mounting, all had taken time and money. If the promoter couldn't obtain the additional money necessary, the project would have to be abandoned. Unable to acquire the necessary means, Butler's management decided to form a separate corporation, complete the plane and market future models. The Butler Aircraft Corporation offered Waverly stock in the corporation, a job as chief of production, and a seat on the board of directors. He accepted.

Waverly (Wavey) M. Stearman, 27 years of age, had been in aviation since he was 17. Eight years were in aircraft designing with the Swallow Airplane Company and Laird Airplane Company. Although he was not an aeronautical engineer like his brother Lloyd, he was a fine mechanic and very inventive. In November of 1924, "Wavey" and Lloyd had left Swallow Aviation in Wichita over an argument with Jake Moellendick, president, about the construction of the fuselage of the *Swallow*. Lloyd insisted the fuselage be of welded steel tubing. Jake said no — spruce had been good enough up to now so why change. They both quit. Waverly spent the next two years more or less in and out of aviation.

The plane was completed the first of October. It was a beauty. It was of solid black fabric over steel tubing. It measured 24 feet from tail to prop and stood 9 feet high. The yellow fabric over wood spruce wings had a 34 ft. span. It swung a 108 inch Hamilton Standard ground-adjustable propeller. The bottom wing had a dihedral of 3½ degrees and the top, 1½ degrees. The angle of incidence was 2 degrees. The open cockpits sat two people side by side in front and the pilot in the rear. The struts were the familiar N-type interplane with thin wire bracing.

The publicity of Art Goebel's flight to Washington had helped the Butler *Blackhawk*. Briney would demonstrate the plane by doing aerobatics without a parachute to show his extreme confidence in the aircraft. There was talk of a smaller version to be named *Blackhawk Sports*. Everything had not quite jelled. The look-a-like still haunted them, the tail heaviness, a weakness in the strength of the undercarriage, and "Wavey." He was sometimes there, sometimes flying, often just "gone."

Milton Bauman was hired by Butler Aircraft in the middle of the year, 1929. He was from Chicago and more importantly an aeronautical engineer. He was to help with design modifications.

When customers ordered a *Blackhawk*, they usually wanted it modified in some manner for some special purpose and that meant resubmitting for a bulletin on type certificate number. When it was ready to roll, however, Walt had it in the customer's hands in forty-eight hours.

In November of 1929, the company had sold only seven airplanes in the last seven months. Their cost of production still exceeded their selling price.

A. K. Longren was hired as a consultant in February, 1930. Longren had been in aircraft design work and development since 1911, and had an impressive mass of data showing the results of his work and tests on his designs. He had moved his operation from Topeka, Kansas to Kansas City. Originally his job had been to help secure Approved Type Certificate for the latest *Blackhawk* model. His design so impressed management it was decided to produce it.

ANOTHER VIEW of Blackhawk shows Stearman lineage.

(118)

LONGREN PROTOTYPE was revolutionary, but came too late to help Butler. **(119)**

The design was an all metal fuselage, the skin of which took care of strains and stresses instead of being merely a covering or sheathing, which not only added to the safety of the craft but lent itself to machine production and eliminated much hand labor, thereby showing a lowering of production costs. Metal ribs were used in wing construction to replace the usual wood ribs which required much time labor in their construction.

Butler offered A.K. the use of plant and equipment to work and the continuing testing of his design, in exchange for Longren stock. The deal was this. He would work with Butler's equipment and with a few of his original employees, construct his prototype and Butler would produce and distribute it.

Times, however, were depressed for everyone, especially the infant aircraft industries. The depression had hit. In a last-ditch fling, a smaller version of the Blackhawk was produced and a Wright Whirlwind J-6 -7 experimental engine was used.

The final disposition of Butler Aircraft Corporation was a total of ten airplanes sold, one plane and one fuselage in stock as of Sept., 1931.

The least that can be said of the Blackhawk was that it was a sturdy, stable, well-built craft. Thirty-six years after its construction, two were known to be in active service, one being used for crop dusting. The pilot's father was not even born when the plane was built.

Art Goebel visited the Albuquerque airport May 8, 1929, flying the Butler *Skyway*. The plane made a good landing, but when the brakes were applied the ship pitched over on its nose. Goebel was unhurt, but was greatly perturbed as he prided himself on being a careful pilot.

The Butler company was notified and a similar ship flown to Albuquerque with repair parts. Goebel continued west with the replacement plane, but when he landed at Winslow, Arizona, the same type of accident again occurred. Meanwhile, the first ship had been repaired but, when an attempt was made to fly it away from Albuquerque, it cracked up so badly on take-off that it had to be dismantled and returned to the factory by rail.

A thorough test program was immediately instituted and it was discovered that the plane had too long a fuselage. This made it tail heavy, and with the full swivel tail skid, produced a tendency to ground loop or spin horizontally in a circle. The fuselage was shortened and a rigid tail skid installed, making the ship easier to handle.

— from the Albuquerque airport logbook.

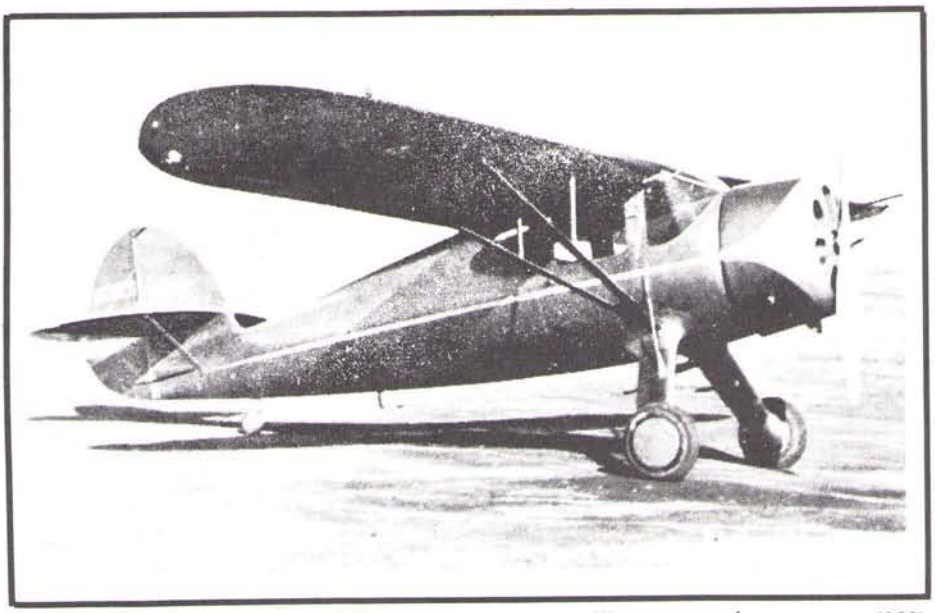
The writer wishes to express his appreciation to Mr. Richard N. Timberman, Assistant Senior Engineer, Butler Building Division, for his help in locating records, plans, notes of directors meetings and photos and his efforts in lending us the use of this material.

THE LUSCOMBE PHANTOM

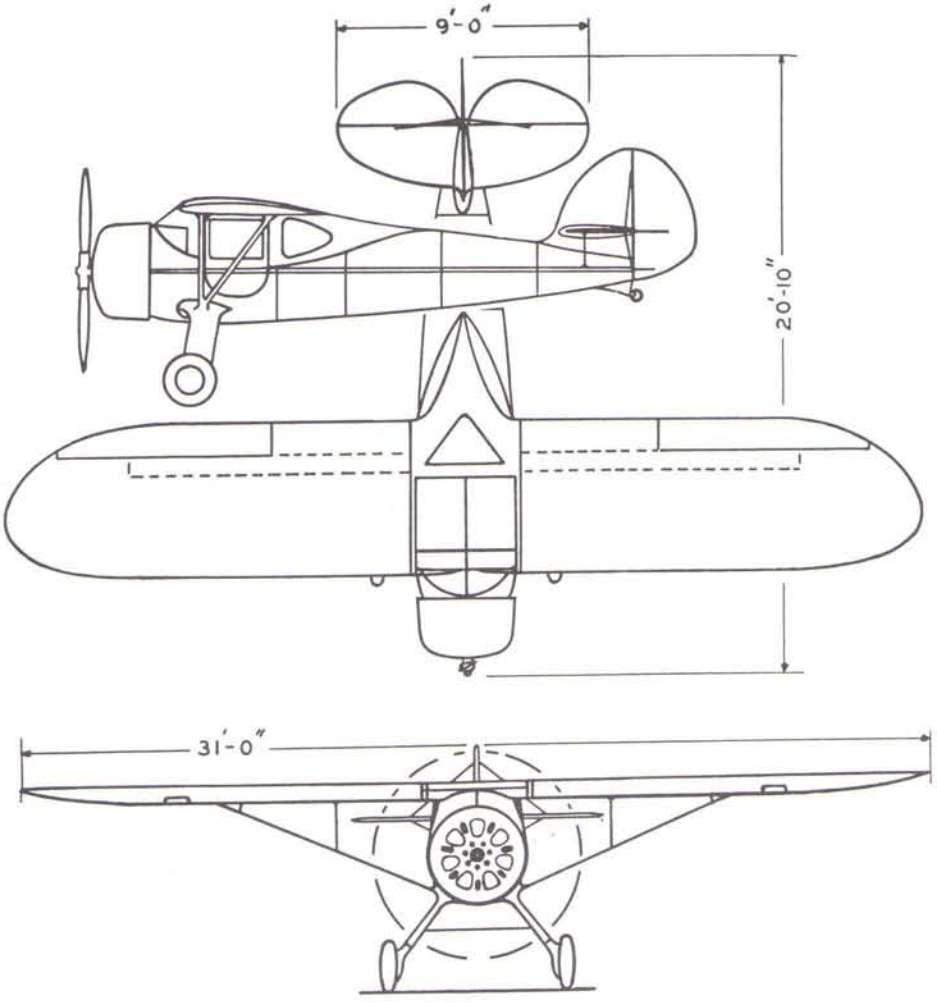
The prototype model of the *Phantom*, first of a long and successful line of all-metal monoplanes, was built in 1933 at Municipal Airport by Don Luscombe. The two-place, high wing cabin monoplane was significant in that it was the first commercially-produced light airplane to use all-metal construction. While the wing and movable tail surfaces were fabric covered, the structure of these parts was metal, and the airplane had a fully monocoque all-metal fuselage.

A. K. Longren, who had built a metal-fuselage prototype for the Butler company in its final efforts to stay in the airplane business, did the metal work for Luscombe. Longren had also built many airplanes of his own, including the folding-wing biplane that became the *American Eagle A-429*. The first *Phantom* was handmade, and Luscombe later developed production techniques in forming the Duralumin fuselages.

The *Phantom*, later built in quantity in Trenton, N.J., weighed 1,300 pounds, and could carry 650 pounds of useful load. Powered with a Warner 145 engine, the plane could deliver a top speed of 165 mph and cruise at 140 mph. Equipped with flaps, it could land at 45 mph. Its service ceiling was 19,000 feet and its range was 650 miles.



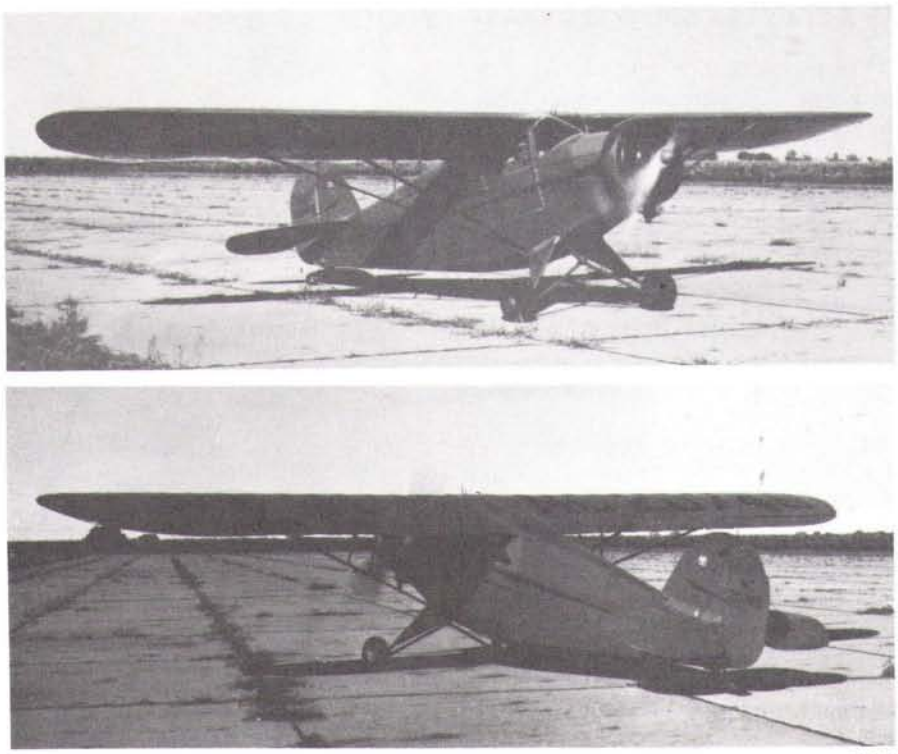
PHANTOM introduced all-metal fuselage to private aviation, was Warner-powered. (120)



THE LUSCOMBE PHANTOM (121)

THE PORTERFIELD

Early in 1933, the Aviation Club of Wyandotte High School in Kansas City, Kansas, began a unique shop project — an airplane. William House, the instructor, thought he had an ideal set of plans, the Pietenpol *Air Camper*, from *Modern Mechanics* magazine. But one of his former students, Guy Poyer, was willing to donate his new 3-cylinder engine to the project if the students would use a new design by Noel Hockaday — a refinement of Hockaday's *Eaglet* design. House, who had been contemplating a great deal of "scrounging" to build the plane, accepted Poyer's terms, and the Hockaday design was used. There would be one major modification, however. The doors of the school shop were a standard 30-inch width. Hockaday's fuselage was built 2⅛ inches narrower to fit the doors.



90 MODEL was powered with the Warner Scarab engine. (122)

The airplane came to be known as the "Wyandotte Pup," and on May 4, 1934, Noel Hockaday took it up for a test flight. It flew well. So well, in fact, that Ed Porterfield, who had watched the test-flight at Fairfax Airport, bought the airplane and manufacturing rights from the Wyandotte students. The "Wyandotte Pup" became the first *Porterfield*, prototype of the Model 35, which brought Ed Porterfield out of retirement and into the airplane business a second time.

Noel Hockaday became Chief Engineer, and he immediately modified the design to take other engines. The

COLLEGIATE MODEL was restored by Bob Shindler (above) with help from Jim Martin, who helped design the original. (123)

Poyer engine had developed vibration problems. A 36-hp Szekely was tried, then a 40-hp Salmson — both were unable to better the Poyer's performance. Then a 5-cylinder, 50-hp Velie was installed, and the Model 35 became a real performer. But more strength was needed to handle the increased horsepower, and a new prototype was built. By mid-1936, the company was producing three airplanes a week at a small factory building at thirteenth and Locust in Kansas City, Missouri. By the end of the year, airplanes were being built in an old dry-cleaning plant at 24th and Charlotte. For seven months during 1937, the firm shared factory space with Hallmark Cards at 25th and McGee. By now the Model 35 airframe was being fitted with a variety of engines, including the 65-hp Velie, 70-hp LeBlond, and the 90-hp Warner.

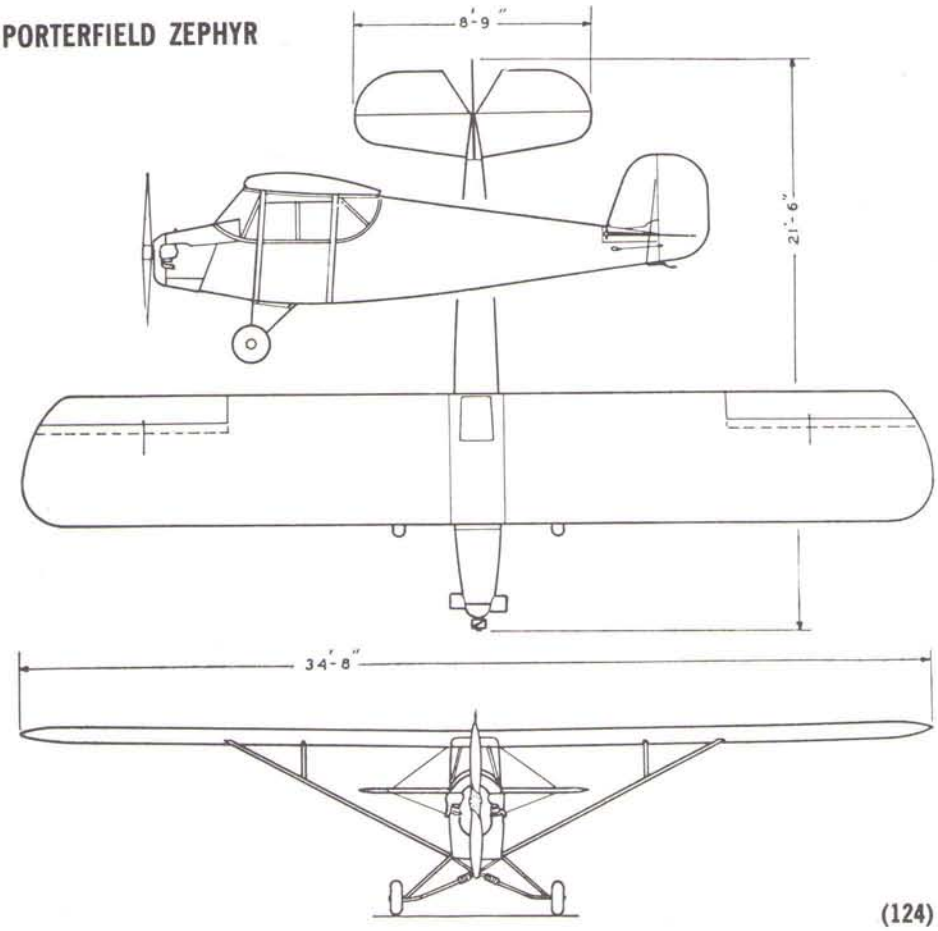
Early in 1937, three engine companies appeared — Lycoming, Franklin and Continental. With their flat profiles, they allowed a new design possibility, and Porterfield put Hockaday to work on it. The result was the *Collegiate*, first offered in 50-hp versions, and later in 65-hp versions.

In redesigning the *Porterfield*, around the Continental 40-hp engine, Hockaday borrowed his *Eaglet* plans, and came up with the *Zephyr* in 1937. It was offered in an open version for $1,295 or as a cabin model for $1,355.

By January, 1939, Porterfield moved to a larger factory at 2809 East 14th in Kansas City, Missouri, and was producing ten airplanes a week. In March, 1939, Roscoe Turner, the famed air racing pilot, joined Porterfield, and the company became known as Porterfield-Turner.

By the outbreak of World War II, more than 800 *Porterfields* had been built and sold. Porterfield subcontracted with the Waco corporation to build more than 1,000 troop-carrying gliders. In 1943, Ed Porterfield, suffering from a heart ailment, sold his powered-plane interests to the Columbia Aircraft Corporation and the glider contract and facilities to Ward Manufacturing Company, of Kansas City, Kansas.

PORTERFIELD ZEPHYR



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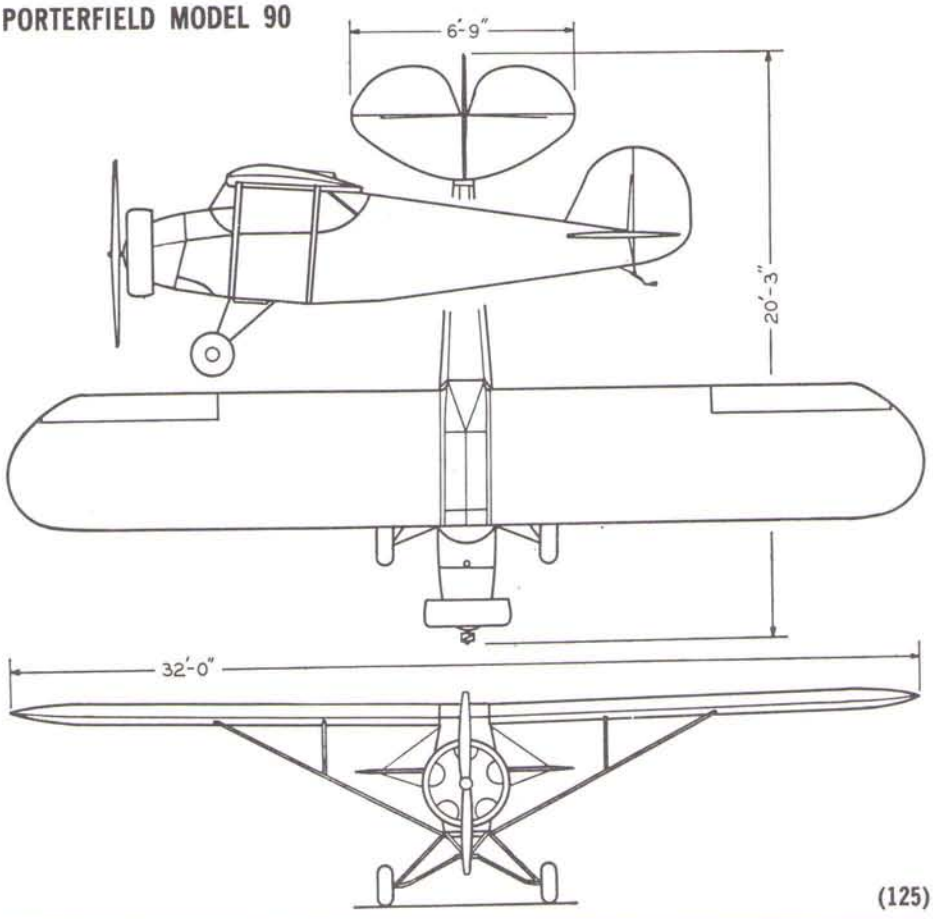
PORTERFIELD MODEL 90



(125)

OTHER MANUFACTURERS

We have tried to include in this volume the significant airplanes "made in K.C." and to separate the homebuilts from production machines. But there were some "one only" airplanes that deserve mention — designs and actual prototypes that emerged from the drawing boards to enjoy a brief moment of glory — then return again to the shadows of obscurity. There were unlikely-sounding "aircraft companies" that sprang up around the dreams and ideas of local birdmen. Earl C. Reed, in his Midwest Aviation History in Pictures, published in 1960, mentioned the Libby Radiator Company, Ruf Cabinet Works, Zahner Hardware Company, Independence Aero Service, and the Wyandotte High School, among several others. They were powered by every conceivable engine, including the Model A Ford.

Dr. Walter M. Cross, at one time city chemist for Kansas City, had ordered a twin-engine monoplane built by the American Eagle Corporation. Powered by a pair of 125-hp Halske-Siemans engines, the 6-passenger plane was Kansas City's first multi-engine aircraft. Its cantilver wing measured 47 feet in span. The plane was successfully test-flown by Larry D. Ruchs, chief pilot for American Eagle, on January 20, 1929. The plane was badly damaged in a later test when the landing gear failed.

Dr. Cross next collaborated with Jack Foster, project engineer for American Eagle, to build the Cross-Foster monoplane, pictured here. An all-metal two-place, it was Warner-powered and fantastically heavy. It barely flew, and was ultimately junked. In later years, Dr. Cross attempted to re-manufacture the Lockheed Vega, but failed (mercifully) to get sufficient financial backing.

Other aircraft produced in Kansas City included the Centurion, manufactured by the Century Aircraft Company. There was no type certification on this aircraft, which was a high-wing monoplane.

(126)

(127)

CROSS-FOSTER all-metal monoplane was patented, and test-flown February 20, 1931. (128)

Manufacturers

TIPTON MONOPLANE was built in Raytown, Missouri, a Kansas City suburb. (129)

The Tipton Aircraft Company of Raytown, Missouri built one aircraft, intending to get it type-certified. A well-designed cabin monoplane, it was a victim of financial difficulties and World War II, as was the Continental, built by the Ong Aeronautical Corporation nearby. (See Racing Section for this aircraft, as well as the Inland Sport.)

The "Continental." (130)

Early Beal Centurions at Municipal Airport (131)

(132)

Airline Development

ABOVE: Lou Holland, often called the "father of K.C. aviation," beside a Curtiss Carrier Pigeon, early N.A.T. mail plane. BELOW: Richard Dobie leaves for Dallas, with the first air mail out of Kansas City on an established route, May 12, 1926.

Perhaps the most important single piece of legislation to change the destiny of Kansas City was the Kelly Act, passed in 1925. It allowed the government to pay civilian contractors for carrying air mail. On October 7, 1925, Postmaster General Harry S. New awarded airmail contracts to five feeder lines, thus beginning the transfer of airmail routes to private operators, and leading to the establishment of airlines as we know them in the United States. The five were *Colonial Air Lines* (New York-Boston), *Robertson Aircraft Corp.* (St. Louis-Chicago), *National Air Transport* (Chicago-Dallas & Ft. Worth), *Western Air Express* (Los Angeles-Salt Lake City), and *Varney Speed Lines* (Elko, Nevada-Pasco, Washington). Two weeks later, Henry Ford's company, *Ford Air Transport*, was awarded the Detroit-Cleveland and Detroit-Chicago contract. Later, *Pacific Air Transport* was awarded the Seattle-Los Angeles run, and Charles Dickinson was awarded the Chicago-Twin Cities contract.

(133)

Airline Development

Kansas City's first regularly scheduled airmail operation began May 12, 1926 when a *National Air Transport* Curtiss *Carrier Pigeon* arrived at Richards Field from Chicago. There were 8,000 persons on hand to celebrate the event. Lou Holland, Chamber of Commerce president, was master of ceremonies. Among the speechmakers was "Uncle Ike" Morrell, 93, postmaster of Notch, Mo.

In a test flight from Chicago a week earlier, the pilot had discovered a leaky radiator as he was approaching Richards Field, and had to land in a pasture about a quarter-mile to the east. A new radiator was delivered to the scene "by motor" and the plane made it to Richards Field under its own power.

Stamp collectors had a field day obtaining first-day cancellations. At least one collector addressed letters to himself at general delivery in all towns on the air route, with returns to his Kansas City address. His failure to call for his mail at the various towns forced the postmasters to return them to Kansas City. First-day receipts on the Chicago-Kansas City-Dallas route totalled $8,411.14. Kansas City led the other cities with $1548.

In the fall of 1926, orders went out to stop government planes from using Richards Field. It was a time of crisis. Lou Holland, president of the Chamber of Commerce, began a campaign to get Kansas City a new airport to replace the outmoded and undeveloped Richards Field. He met resistance in City Manager H. F. McElroy, who said "Lou, let me tell you all there is to aviation. There's a lot of young bucks who learned to fly

JOHNSON, flying first air mail into Kansas City, May 12, 1926.

COMMEMORATIVE RIBBON, given to guests at ceremonies marking first air mail. Lou Holland was principal speaker at the Richards Field event. (134)

"IKE" MORRELL, postmaster from Notch, Mo., who was guest speaker at event. (135)

in the war. The government has those old crates piled up down in Texas and as fast as the boys get two or three hundred dollars they buy them. As soon as they have smashed the crates and killed themselves there will be no more flying." But Holland persisted. He asked the Air Corps Reserve Officers' Association to survey likely airport sites. This they did, at no charge. Their first choice turned out to be a weedy tract of willows and sycamores at the north end of the Hannibal bridge. Later, City Manager McElroy would become one of the airport's chief boosters.

THE EARLY INDEPENDENTS

Before the air mail contractors developed, there were small, independent operators who managed to fly passengers and cargo on a more-or-less refularly scheduled basis. One of these pioneers was the Kansas City to Wichita line.

At 8:15 a.m. on July 7, 1925, a *Lincoln-Standard* with yellow wings and blue fuselage took off from the North Kansas City flying field and began a 225-mile flight to Wichita. The plane was the "Blue Bird," flagship of the newly formed Kansas City to Wichita airline, officially known as *"Kansas City Airways Transportation Company."* It was the maiden flight of an airline venture that would continue for 3 months.

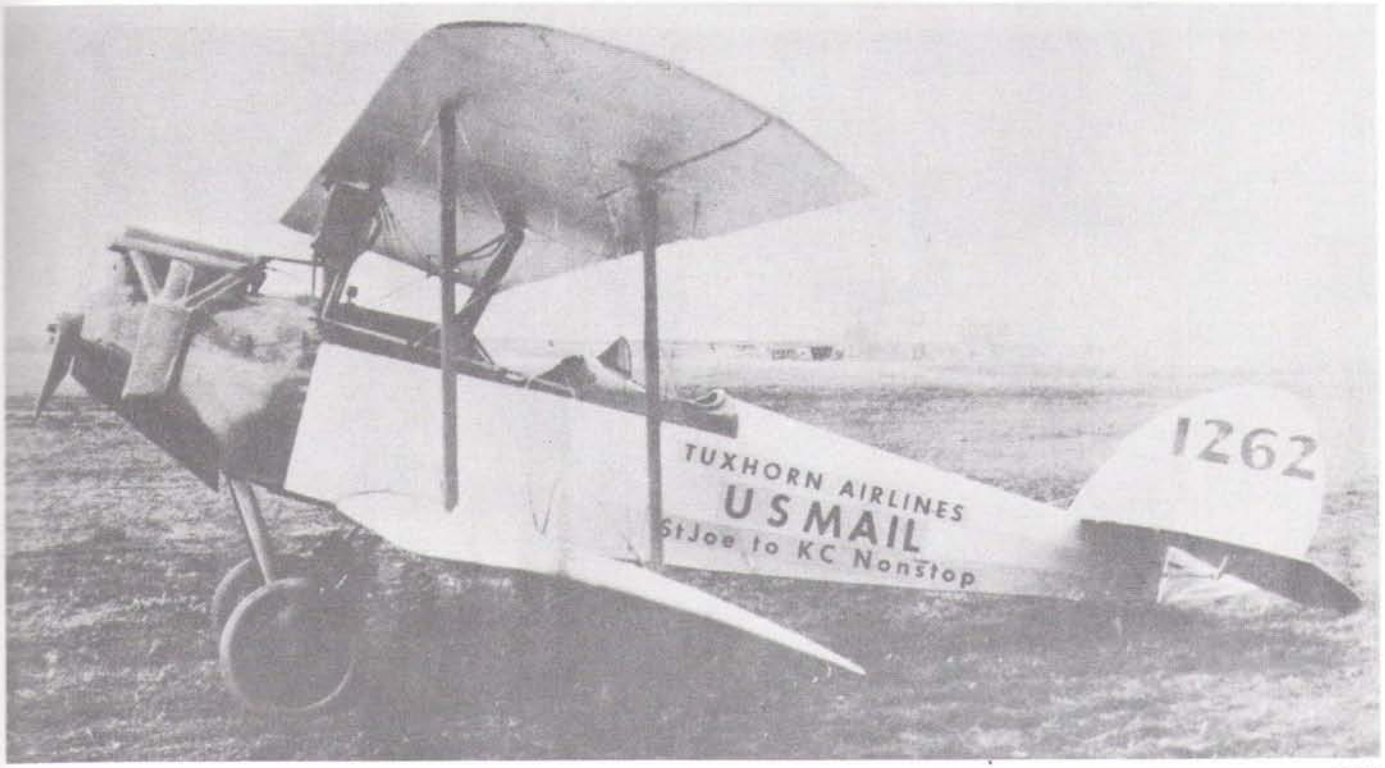
Piloting the 4-passenger ship was E. L. Sloniger, who would later become a pilot for *American Airlines*. The single passenger in the open cockpit was a reporter for The Star, who obviously enjoyed the flight, probably his first airplane ride. He described the flight: "Secure enough, everything felt in the cockpit, and yet at first the passenger felt more than the ground coming up when the "Blue Bird" made her maiden dips." Sloniger had to keep the *Lincoln-Standard* low, avoiding a strong headwind. The July sun caused convection currents which resulted in the "maiden dips" the reporter described. The reporter had little to say about the airplane's technical features, probably because he was too busy noting the reactions made by earthbound creatures. "Cattle in the pastures stampeded when the shadow of the big bird with the ominous steady song pursued them. A hired man's team, hitched to a mower in an alfalfa field, started off at a brisk clip, leaving a pale green swath behind them."

It was recorded in Wichita, where "an eager crowd was waiting at

BLAINE TUXHORN in the late 1920's. (136)

Swallow Field" that the reporter shook hands with Sloniger as he clambered out of the cockpit, and Sloniger remarked, "Only 11:30 o'clock. Three hours running time in the face of that stiff southwest wind isn't so bad. We'll simmer down to a 2½-hour schedule after a half dozen trips."

On the return trip, the "winged stage" indeed took only 2½ hours, leaving Wichita at 4:30 in the afternoon and arriving in Kansas City at 7. On the way, the "Blue Bird" raced a passenger train out of Emporia, where the plane had stopped for



WACO BIPLANE, used by Tuxhorn on his Kansas City-St. Joseph mail run had 4-cylinder "split Hisso" engine, used hook pickup. (137)

gas. "The pilot and the engineer waved challenges, the drive shafts of the locomotive flashed and the zoom of the propeller on the aircraft raised a pitch. Passengers in the coaches waved their hands and handerchiefs, and the mail crew opened the door to watch the race. It was all over after the first bend. The air stage cut straight and in five minutes it had left the train in the distance."

Later, other independent airlines and feeder lines would spring up around Kansas City like mushrooms after a spring rain. Blaine Tuxhorn, one of Kansas City's earliest pilots, operated a line between Kansas City and St. Joseph. His airplane was a Waco 8 biplane with a "split Hisso" 4-cylinder engine. It was perhaps the only 4-cylinder, 2-place airplane ever used in the air mail service. Tuxhorn's route was nonstop, utilizing a hook pickup system, which enabled him to deliver and pickup mail at St. Joe without landing. Later, Tuxhorn would operate a line from Kansas City to Joplin to Springfield to Carthage and back to Kansas City. The Tuxhorn line was a forerunner of *Ozark Airlines*. Other short-haul lines included the *Interstate Transit Airline Co.* from Kansas City to Omaha, the *Yellow Cab company airline* to Minneapolis, and *Mid-Continent Air Express* to Pueblo and Denver.

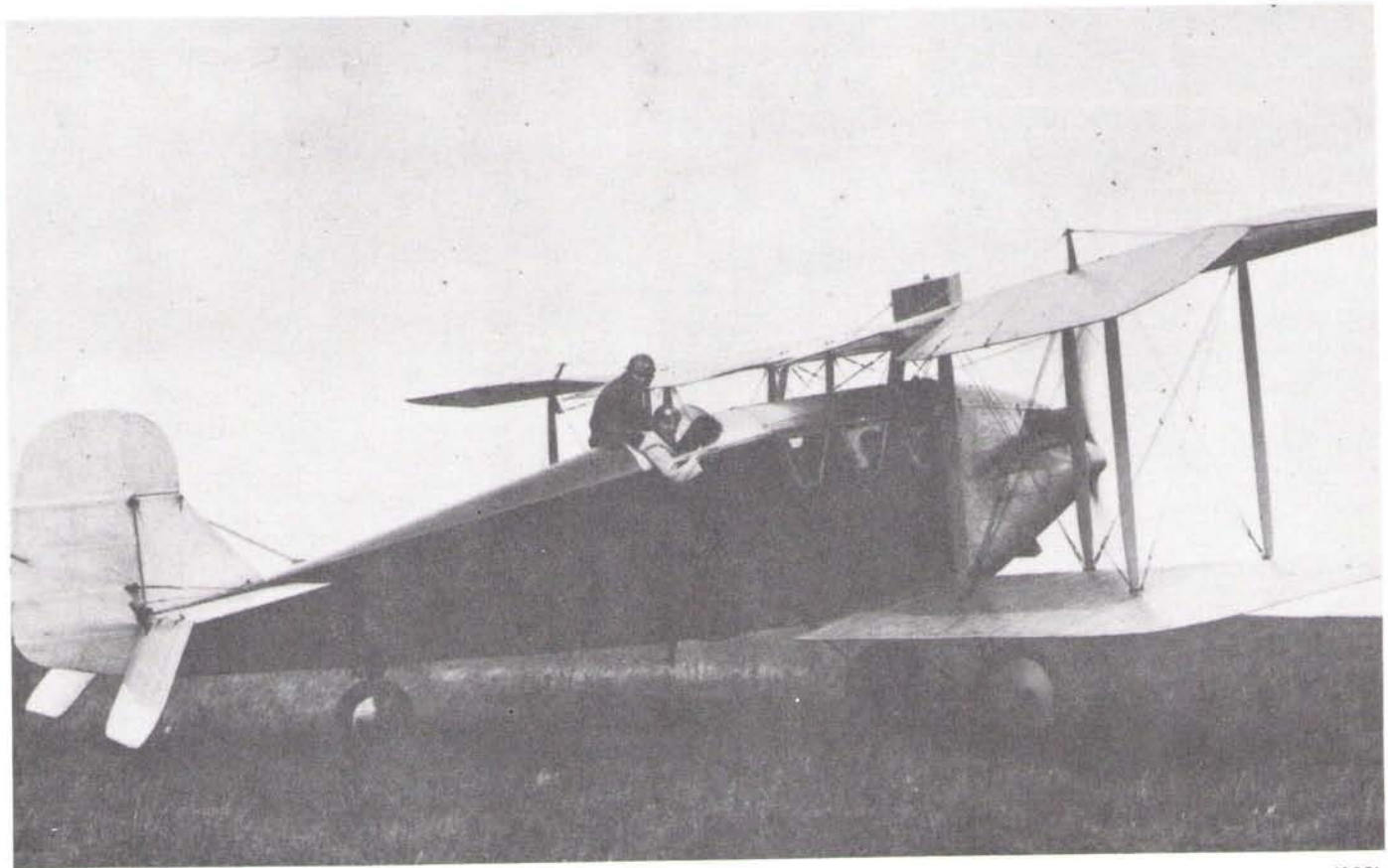
Kansas City's first aerial freight was hauled August 19, 1925 from Richards Field by Tex LaGrone in his Waco biplane. It was a small gasoline engine from the Witte Engine Works in Kansas City, bound for Wichita and the firm of George Christopher and Sons. Its eventual destination was Oporto, Portugal, where it would power an irrigation pump.

GROWTH OF TRANSCONTINENTAL CARRIERS

The first airline to serve Kansas City was *National Air Transport*, operating from New York to Chicago and from Chicago to Dallas by way of Kansas City. N.A.T. had begun operations with ten Curtiss *Carrier Pigeons*, each with a 1,000 lb. capacity. These airplanes cost $25,000 each, and saw service only one year, being phased out in 1927. They were replaced by a fleet of 15 planes, consisting of *Douglas M-2's* and *Travel Air 5000's*. The Douglas planes were used for night operation and the Travel Airs flew in the daytime. N.A.T. began carrying passengers along with the air mail in September, using the Travel Airs. Passenger fare was 10 cents a mile — $44.60 from K.C. to Chicago.

The Chicago-Kansas City-Dallas leg of N.A.T. connected the midwest and southwest with America's one cross-country airline system in 1927. The system was a composite of two lines: N.A.T. (the New York-Chicago leg) and Boeing Air Transport (a division of the Boeing Aircraft Company) which operated between Chicago and San Francisco. A merger in 1930 created *United Air Lines*.

By 1928, N.A.T. employed 13 pilots, whose salaries ranged from $5,000 to $9,000. These men worked out of Kansas City. In addition to the pilots, there were two field managers (one for day operation, and one for night), three office clerks, and a chief



BLAINE TUXHORN needed a transport plane for his airline, so he built one, in 1926. It carried six passengers. (138)

mechanic, with nine mechanics under him. The division traffic manager, Clarence E. Fleming, also had an office in the Chamber of Commerce. Later in the year, the Douglas airplanes were replaced by Curtiss *Falcons*, with the Douglases going to the Chicago-New York division of N.A.T. The N.A.T. planes were now at Municipal Airport, in the No. 2 hangar. N.A.T. began using Ford Trimotors in 1929.

Transcontinental Air Transport (T.A.T.) was formed May 16, 1928, but didn't begin scheduled operations until more than a year later. From the start, it was operated as an air-rail trans-continental airline. Its financing and directing came from Wall Street. Col. Charles Lindbergh, at the height of his popularity, mapped and organized the coast-to-coast route, which became known as the "Lindbergh Line." Lou Holland, already a major contributor to Kansas City aviation as the spark plug behind Municipal Airport, convinced T.A.T. officials their headquarters should be in Kansas City. A bit of Wall Street came to Kansas City as a result of Holland's persistent persuasion. By the time it began scheduled operations in July, 1929, T.A.T. was a Kansas City-based line.

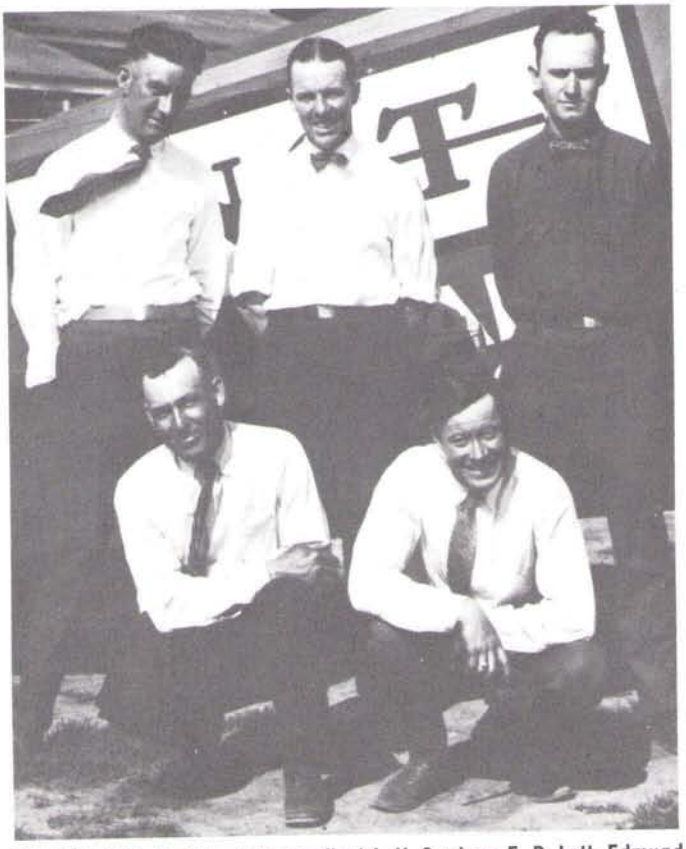
While T.A.T. was testing its route between Los Angeles and Kansas City, another line, *Western Air Express*, established regular service on a route that closely paralleled T.A.T. Founded in 1926, W.A.E. originally flew between Los Angeles and Salt Lake City, and was the first airline to maintain sustained passenger service in the United States. When its eastbound passengers deplaned at Kansas City, they had a choice of lines on which to continue eastward. In 1930, T.A.T. and W.A.E. were forced to merge, forming *Transcontinental and Western Air*, later to be known as *Trans World Airlines*. It was the nation's first all-air, single-carrier transcontinental passenger line. A fleet of 10-passenger Ford Trimotors averaged 35 hours and 9 minutes to carry passengers back and forth from Neward to Los Angeles. There were 11 stops, with Kansas City being the over-night point. A one-way fare cost $200.

A third trans-continental carrier, *American Airways* (later to become *American Airlines*) emerged from the consolidation of five air firms, led by *Universal Air Transport*. Universal was a subsidiary of *Robertson Aircraft Corporation*, headquartered in St. Louis, with offices in Kansas City.

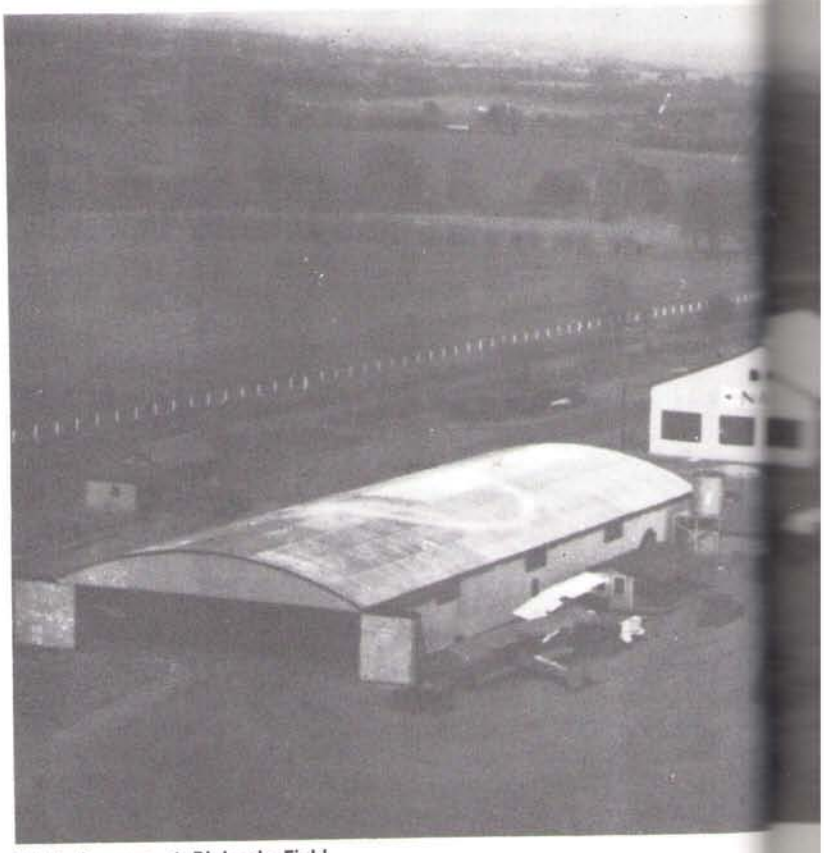
ABOVE: Richard Dobie and "ash can medal" for first on-schedule flight, June 22, 1926. (139)

BELOW: Johnson leaves Richards Field for Chicago, 1926. (140)

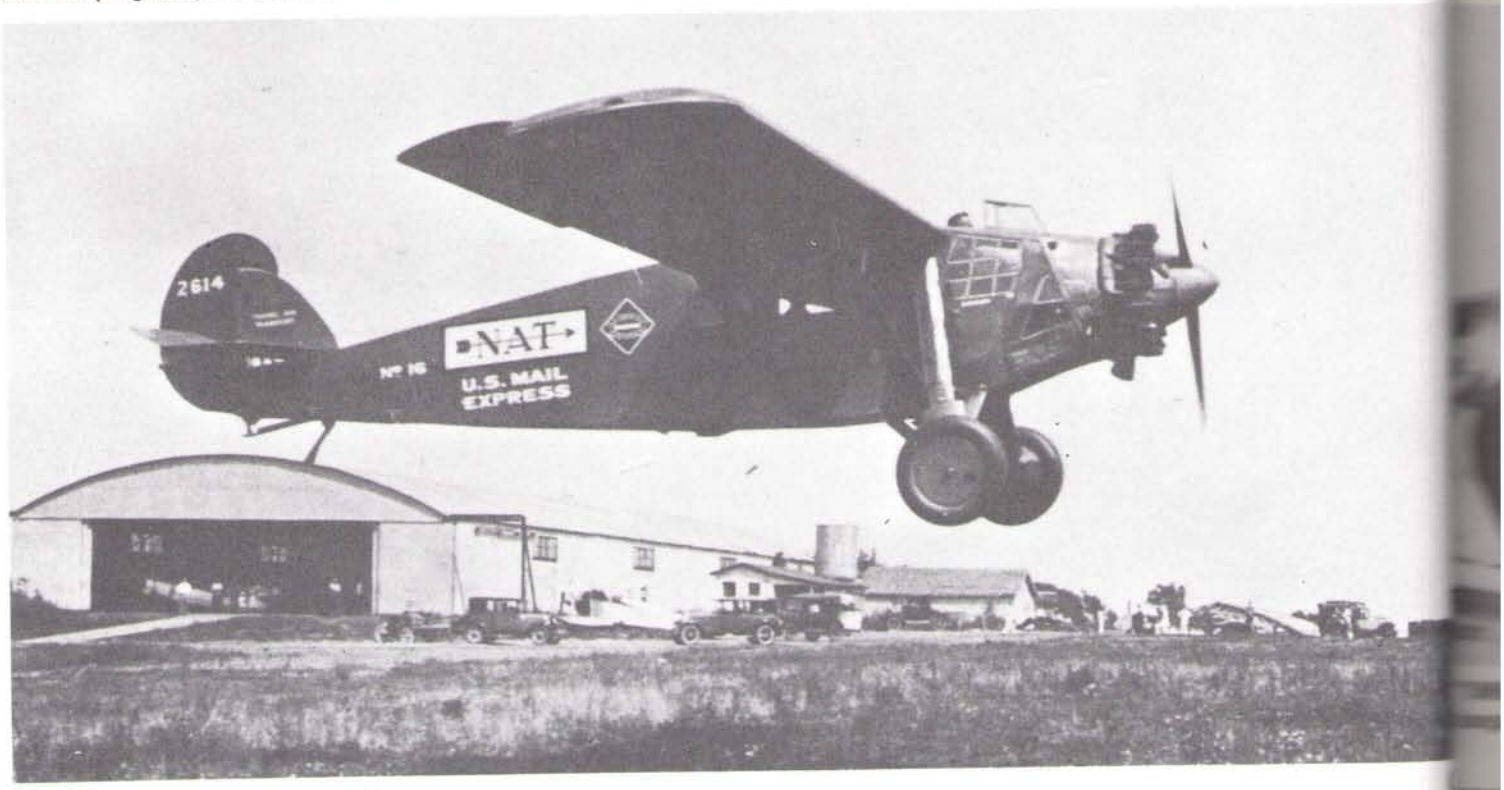
N.A.T. ALBUM



N.A.T. PILOTS. (Left to right, standing) L. H. Garrison, E. P. Lott, Edmund Matucha. (On ground) R. L. Dobie, W. G. Neville. (141)



N.A.T. hangars at Richards Field.



TRAVEL AIR landing at Richards Field.

EARLY DAY SCENES OF KANSAS CITY'S FIRST MAJOR AIRLINE

(142)

"UMBRELLA HANGAR" used after N.A.T. hangar burned. (144)

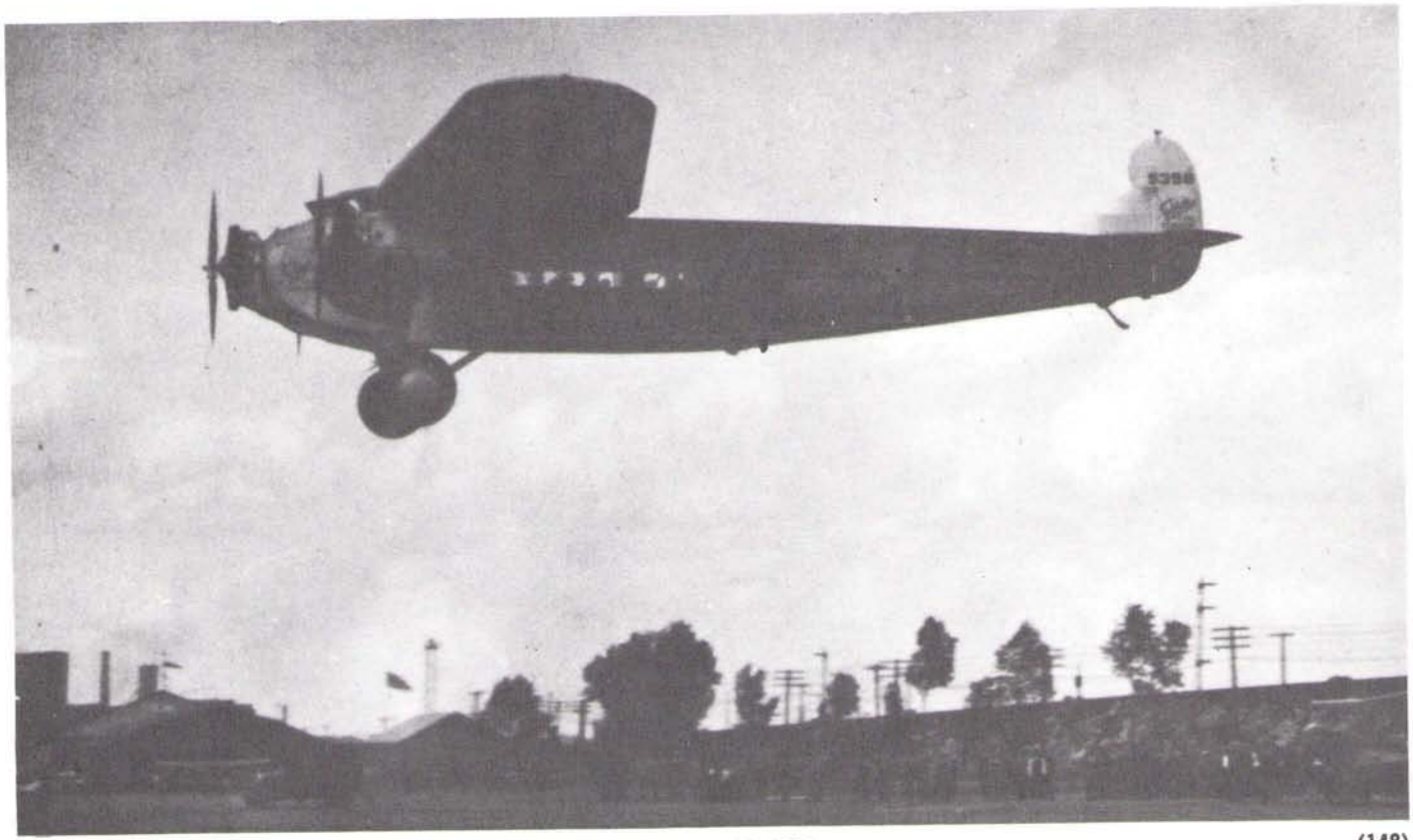
N.A.T. office before the 1927 fire. (145)

Sorting Dobie's mail. (146)

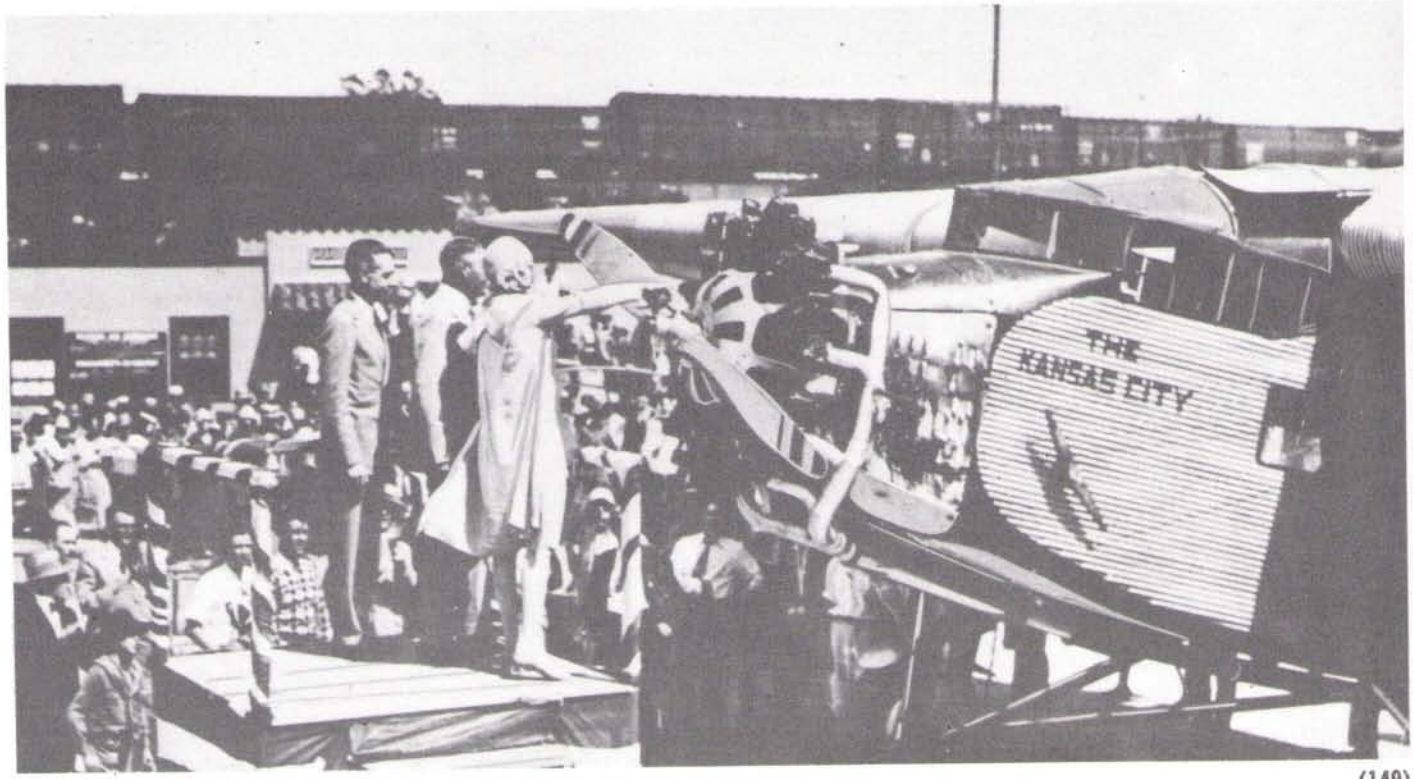
Loading the night mail. (147)

Airline Development

Tri-Motor Era



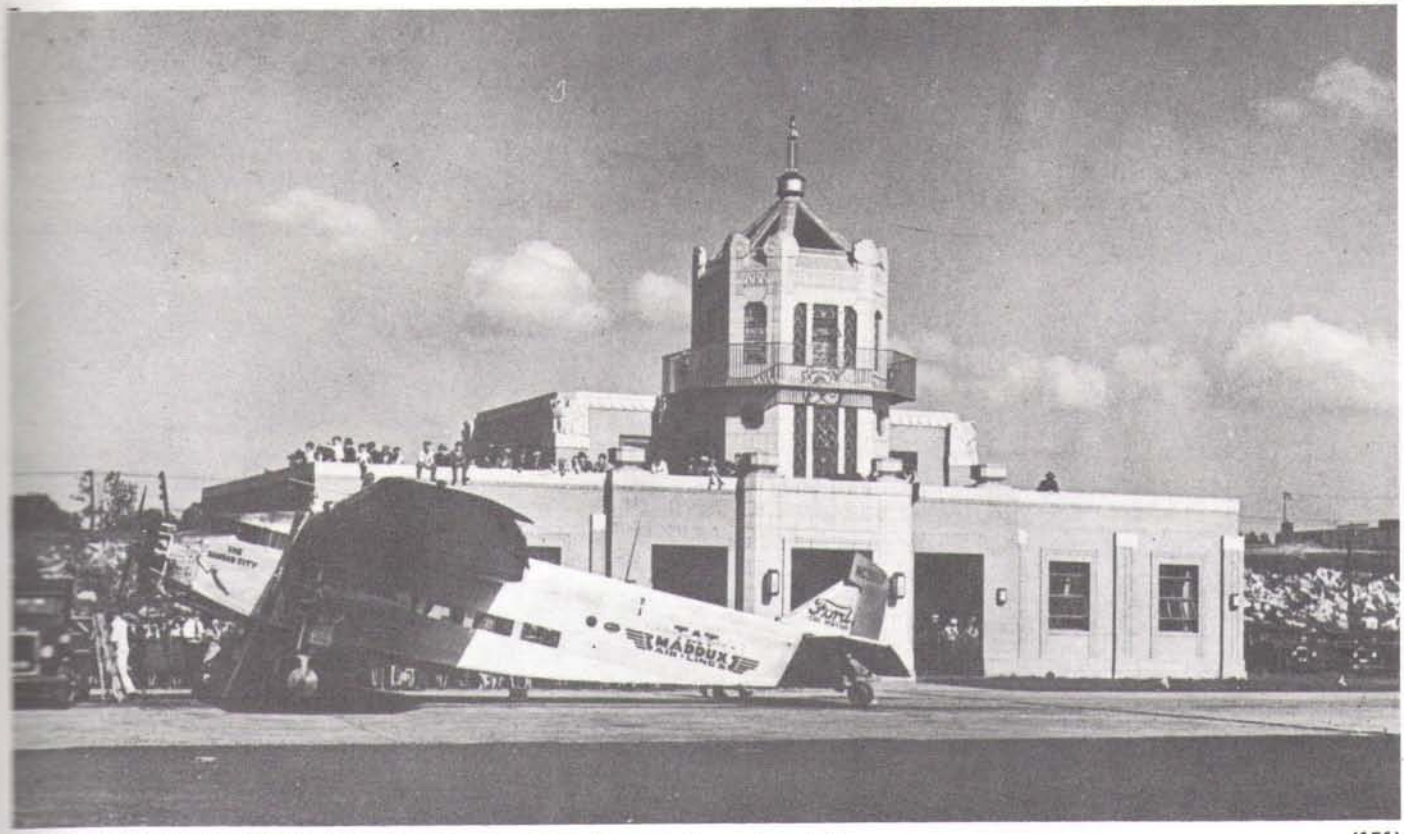
FIRST WESTERN AIR EXPRESS TRI-MOTOR (Fokker) at Municipal Airport, May 16, 1928. (148)



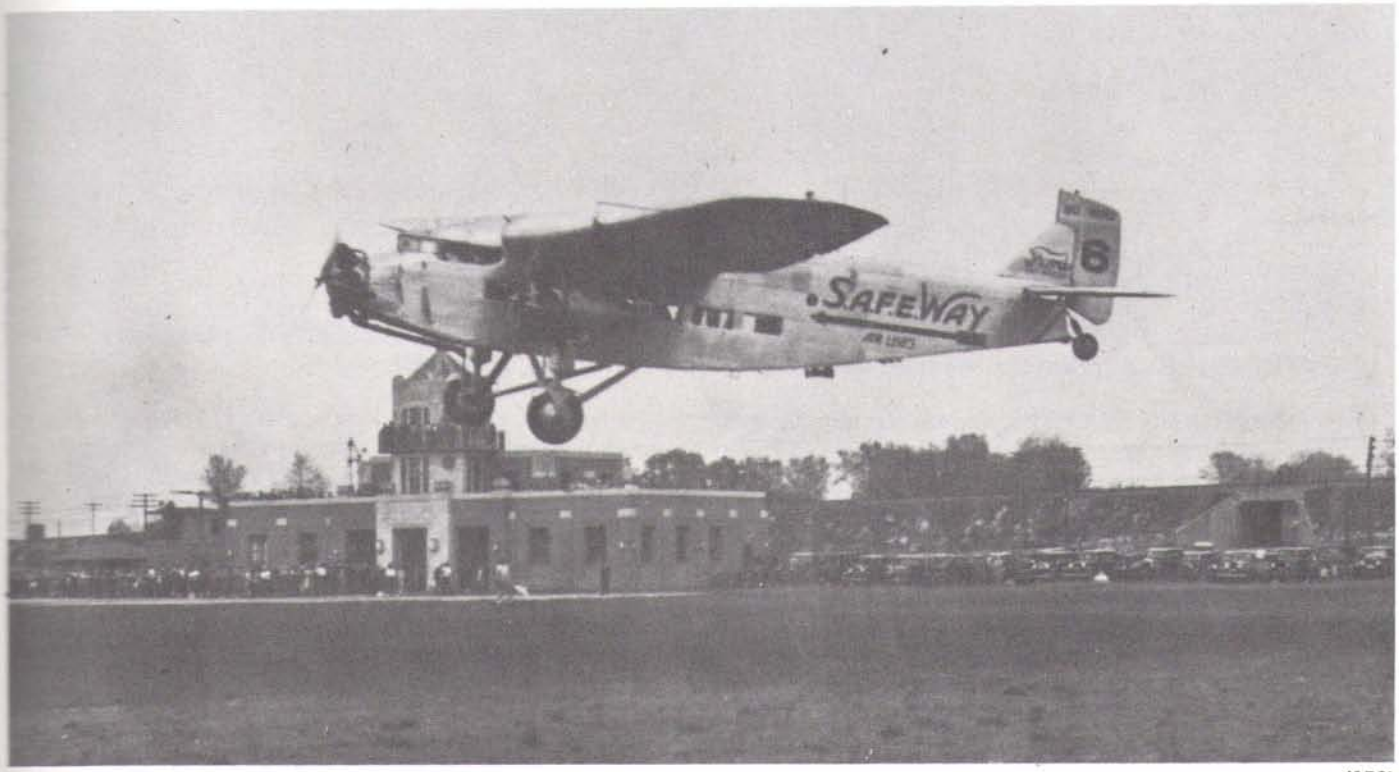
OPENING T.A.T. AIR-RAIL LINE. Ford Tri-Motor is christened by Eleanor Beach in 1929. (149)

NEW TRANSPORTS BY FOKKER AND FORD CHANGE CONCEPTS OF AIR TRAVEL IN THE 30's

MIDCONTINENT AIRLINES FORD at Fairfax. (150)



T.A.T.-MADDUX FORD TRI-MOTOR at Municipal Airport in 1929. (Same airplane as lower left. (151)



SOUTHWEST AIR FAST EXPRESS (S.A.F.E.WAY) landing at Municipal Airport April, 1930. (152)

Airline Development

A lot more could be written about airline progress and how it effected Kansas City in the years that followed. But by 1930, Kansas City had undergone an immense change, with the airlines progressing from locally owned, short-haul outfits scraping along with little or no capital reserves to huge amalgamated nation-spanning lines with nearly unlimited financing. The result was a city with far-flung business interests, and horizons that extended to both coasts and beyond. The seeds for future growth had been planted, and the pattern for expansion was set. The town that had failed to become an aircraft manufacturing hub had become an airline hub, with a location advantage that even today is not fully realized.

LINDBERGH VISIT LEADS TO BIGGER THINGS

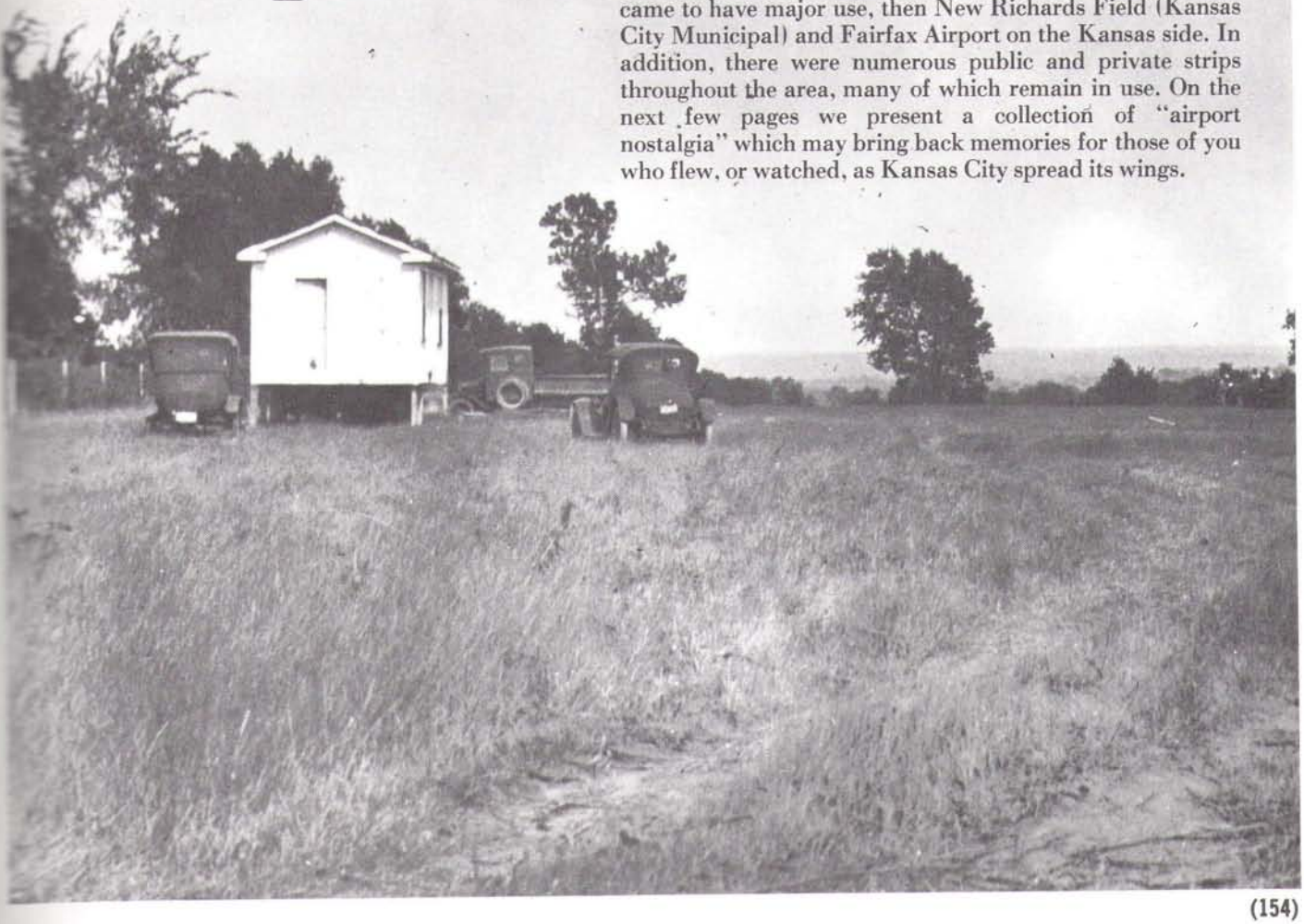
THE "SPIRIT OF ST. LOUIS" at Municipal Airport in 1927. How could the airport do anything BUT improve? **(153)**

Charles Lindbergh, who had recently returned from his heroic solo across the Atlantic, visited Kansas City August 17, 1927. After numerous passes, he landed the "Spirit of St. Louis" at Municipal Airport, cautiously selecting a dry strip at one end of the field, which was drying out after a summer shower. A large crowd was on hand, "staring and shouting" as the world-famous aviator taxied to a stop. He then mounted a podium and addressed the crowd, making a few complimentary remarks about the importance of Kansas City to air travel development, etc. A short ceremony was held, dedicating the airport. Later, a parade went through town. Police had to stop the parade vehicles at various points and clear a path through the surging crowd. Home-made confetti was dropped from high windows.

In the evening, Lindbergh repeated many of his remarks at a speech at the Hotel President. A recording was made of this speech by J. J. Warner, an engineer for radio station WOQ, operated by Unity School. Lou Holland heard about the recording a year later, when Lindbergh was head of a technical committee to select a headquarters for T.A.T. Holland looked up Lindbergh and played the recording of his speech back to him. After listening to his own persuaded the committee to agree on Kansas City as the headquarters for the airline, later to be known as T.W.A.

Airports

In 1917, Albert C. Reed arranged with Ernest Kellerstrass to use a portion of his farm as an air-field. For the next two years Reed operated the field, which lay at the top of a hill to the east of what is now 87th and Holmes Road in Kansas City, Missouri. This was Kansas City's first "airport" and Reed operated it without a fatality or serious accident, according to his son, Earl. Among notable pilots to use the field were Blaine Tuxhorn, Lt. John Dow, Tex LaGrone and Beeler Blevins. Old Richards Field later came to have major use, then New Richards Field (Kansas City Municipal) and Fairfax Airport on the Kansas side. In addition, there were numerous public and private strips throughout the area, many of which remain in use. On the next few pages we present a collection of "airport nostalgia" which may bring back memories for those of you who flew, or watched, as Kansas City spread its wings.



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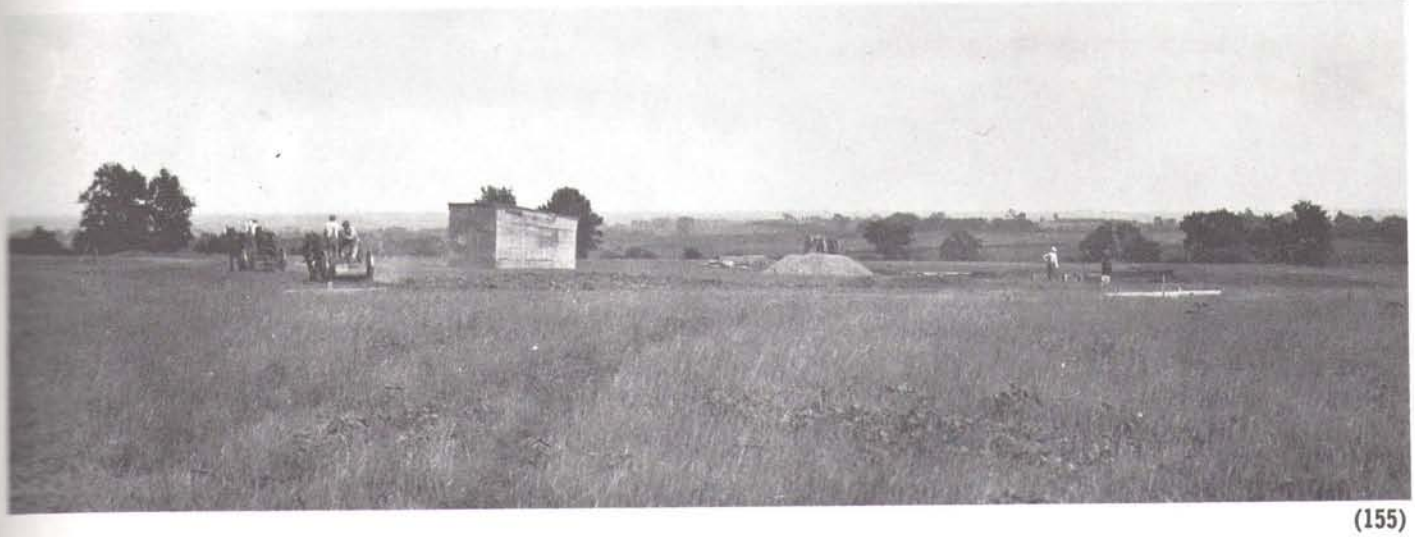

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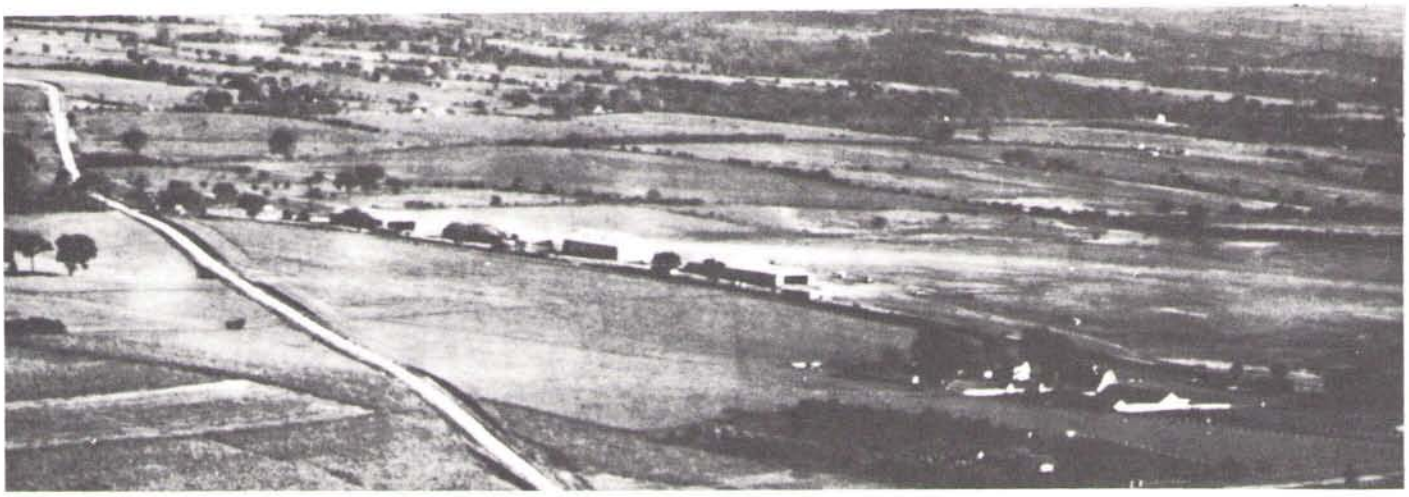
Airports

OLD RICHARDS FIELD, FROM THE COLLECTIONS OF R. S. KNOWLSON, WINSTON GOLITZ, AND EARL C. REED.



LAYING SOUTH OF HIGHWAY 50, Old Richards Field was little more than a pasture . . . (156)

. . . but it attracted a variety of pilots, who shared it with National Air Transport. And they flew mostly biplanes . . . (157)

. . . like the Swallow from Wichita . . . (158)

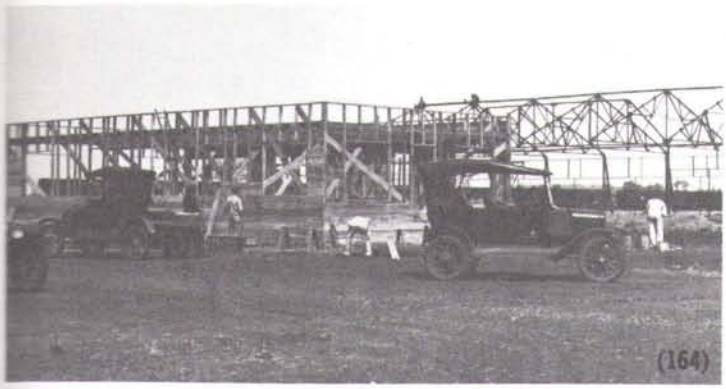
. . . the Waco from Ohio . . . (159)

. . . the Arrow Sport from Nebraska . . . (160)

. . . and the Gypsy Moth from New York. And many more. (161)

EARLY "FLY-IN" AT MUNICIPAL. Note traffic jam, the steam locomotive, and the absence of runways. (162)

EARLY RUNWAY SURFACE WAS CINDERS, but ruts developed, and occasionally aircraft would "stumble." (163)



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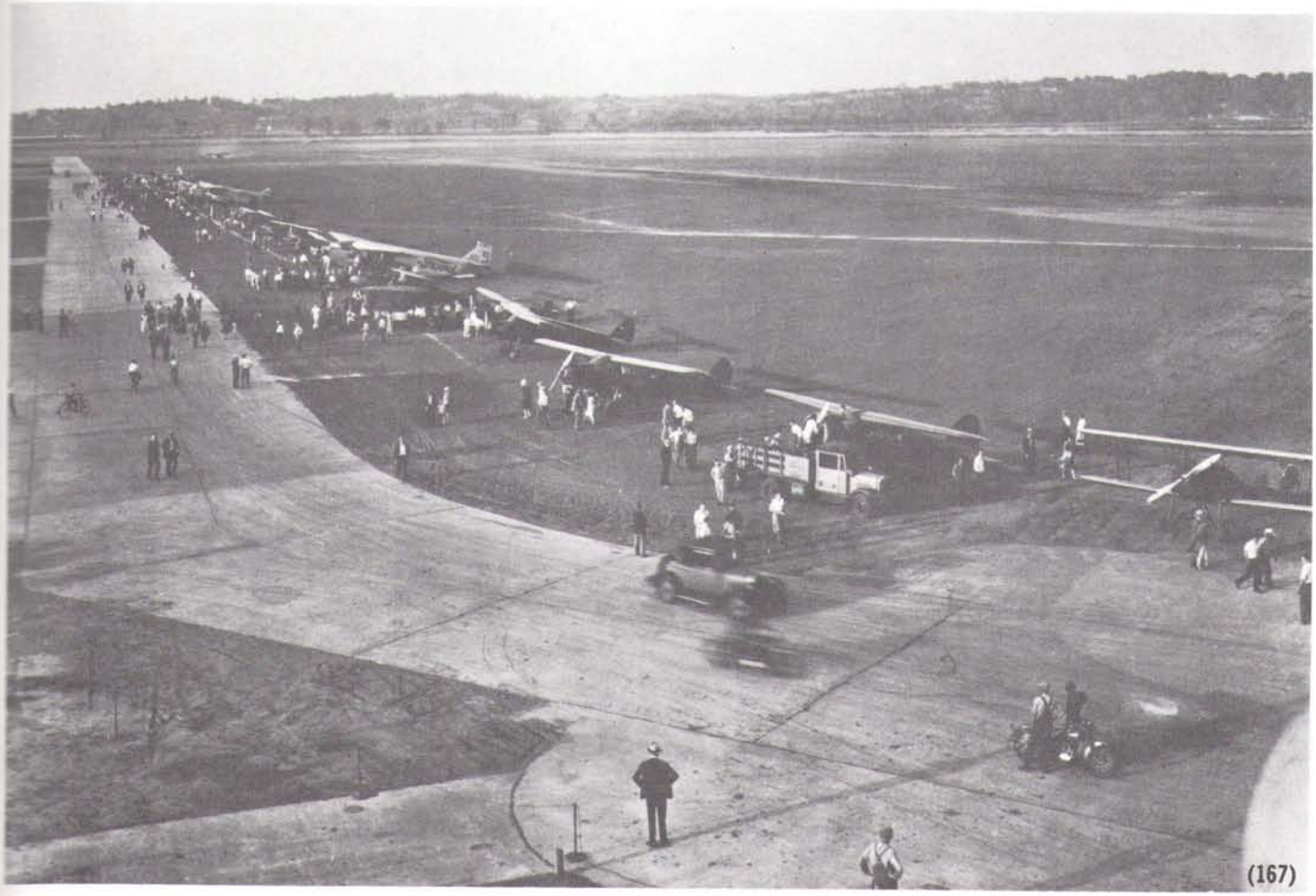
FIRST FAIRFAX BUILDING was "Sweeney Air-Port" hangar and clubhouse, above. BELOW: Ford Reliability Tour in 1929.



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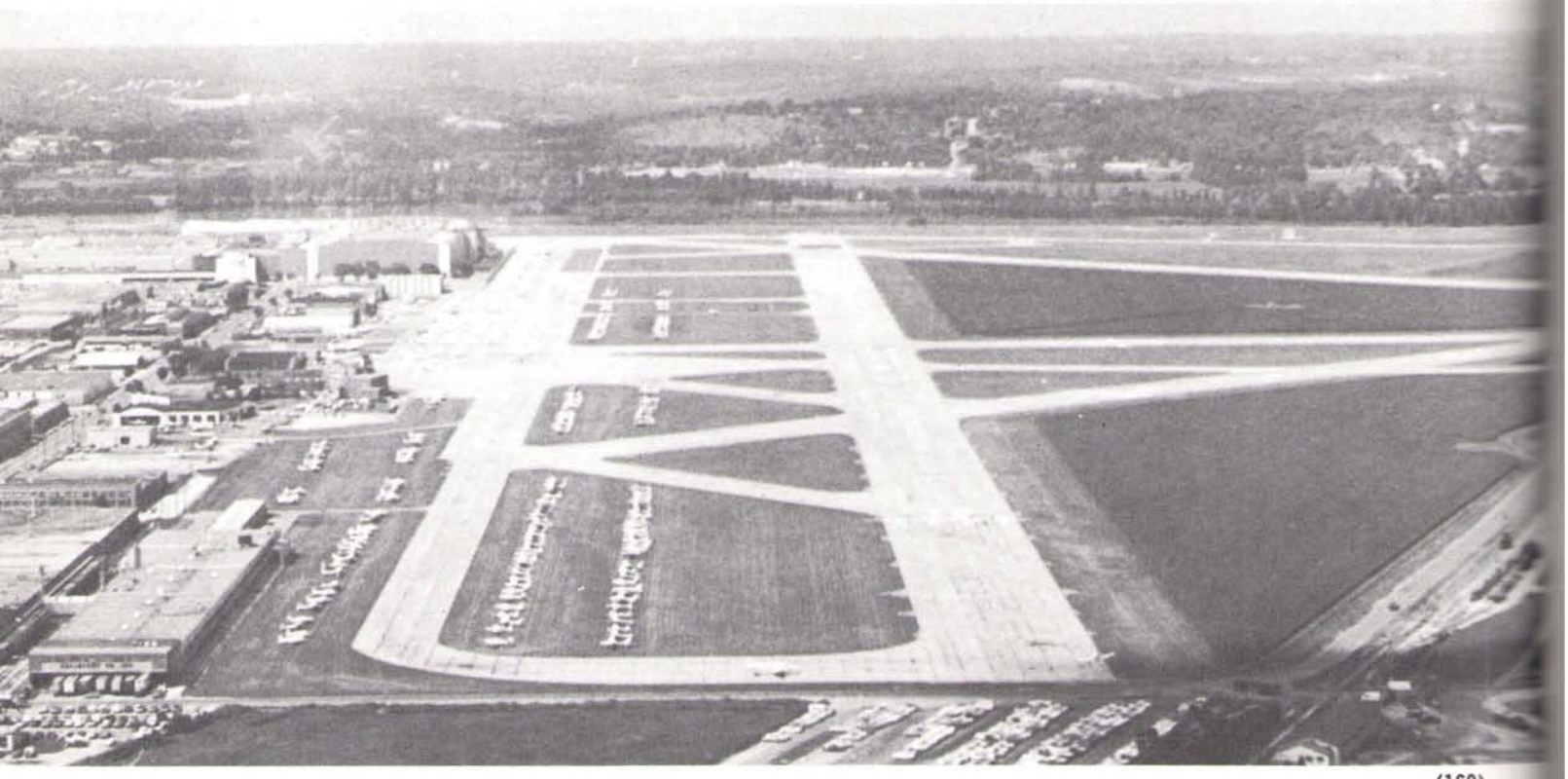
Airports PRESENT-DAY ACTIVITY

Flying in Kansas City is big and getting bigger. The three civil-aviation airports with control towers — Fairfax, Municipal and Kansas City International — posted a record number of operations in 1969 — more than 893,000 operations. Of these, Fairfax Airport led with nearly 306,000. Airline activity accounted for 138,000 of the operations at Municipal Airport. Kansas City is served by 29 airlines. And Kansas Citians own more than 2,000 aircraft of all descriptions, flying from a dozen airports in the area in addition to the control-tower ports listed above.

(168)



(169)

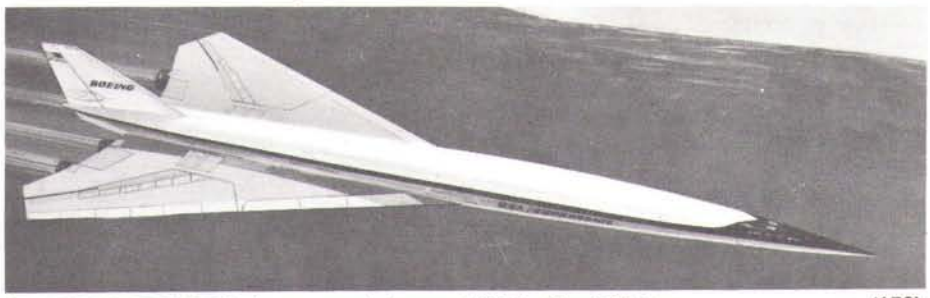
LOOKING AHEAD

With the completion of terminal facilities at Kansas City International Airport, the area will have one of the world's finest jetports. With runways two miles long, 57,500 feet of taxiways and 400,000 square yards of service aprons, the port is ready for present jets and those still on the drawing boards. The new port will almost triple the capacity of Municipal Airport, increasing the number of jet gates from 16 to 45.

The terminal modules, a fresh, bold approach to passenger convenience, will save steps and minutes, and make the new facility one of the most modern anywhere. It's an exciting concept, bringing Kansas City closer to world markets and making neighbors of persons many countries away. The history of aviation in Greater Kansas City is beginning a new and magnificent chapter.

GIANT 747 JETLINERS will introduce new luxury to air travel. (170)

UNHEARD-OF SPACIOUSNESS greets travelers on the 747. (171)



STILL BEING DEVELOPED, the supersonic transport (SST) will call KC-I home. (172)

TOPOGRAPHICAL MODEL of KC-I shows unique circular terminal modules. (173)

Sport and Antique Aviation

LES HILDEBRAND takes off in his "Tuholer" homebuilt at 1968 Excelsior Springs fly-in. (174)

Local chapters of the Experimental Aircraft Association and the Antique Airplane Association are among the fastest growing and most active in the nation. Winston Golitz, current EAA Chapter 91 president, and Dan McGrogan, one of the founders of the AAA group, are contributing editors of HISTORIC AVIATION, and have prepared the following article.

SPORT AVIATION

The Experimental Aircraft Association headquarters issued a charter to Chapter 91 in July, 1960. Del Hickox was the first president, followed by Bob Liable, Don Farrell, Jim Miller, Jim Ball, Cam Blazer, Dr. Dale Drummond, Marion Dornhoffer and Winston Golitz.

By the end of 1969, the chapter had 76 members and was increasing at the rate of about one per month. Twelve homebuilts had been put in the air since the chapter was formed. Approximately 35 projects were under construction. Three homebuilts were completed and flown in 1969 and perhaps twice that many were expected to be completed and flying in 1970. Chapter 91 has staged a fly-in each year since it was formed. They have taken place at Bonner Springs, Fairfax, Olathe, Warrensburg, and Excelsior Springs. Since the inception of the AC Rally to the annual EAA International fly-in at Rockford, Illinois, the chapter has held its fly-in on days the rally began. Kansas City represents the western leg of the rally, which is open to both homebuilt and antique aircarft.

Some of the most popular projects in the chapter include the Pitts Special biplane, Smith Miniplane, Great Lakes, Taylor monoplanes, Geenie's Teenie and Midget Mustangs.

Chapter 200, located on the Kansas side, is a sister chapter to 91, and also has a number of projects underway. Tom Cooperider is their president at the time of this writing and also a member of Chapter 91.

Perhaps the best way to learn something of the problems and rewards of a homebuilt project is to hear it from a homebuilder himself. Del Bradley has this to say about his homebuilt. "My construction project is a Midget Mustang, an all metal, low wing, single-place tail-dragger with fixed gear. Wing span is 18½ feet. Empty weight will be approximately 600 pounds, and cruising speed with a Continental 85 should be around 170 mph. I figured this should be a 2-year project when I started on it three years ago last month, and I now think it probably can be completed within the next year. When I started the Mustang, I could count from the plans seven fuselage bulkheads, but before I finished them, I was sure there were seventeen. Also when I started the wing ribs, I knew there were 20 rib stations, but by the time I finished them, I thought surely there were 120. And flanged lightning holes in the wing ribs — actually there are 120 of 15 different sizes, but it seemed more like 1,200. And rivets. Of course I never counted the total required by the plans, but right about now I'm sure there must be close to a million. Seriously, though, with a little patience, each element of the job does get done, and you do get immense satisfaction from completing each phase of the project. I'm looking forward to that even greater feeling that must come when the whole thing is finally complete."

ANTIQUE AVIATION

The Kansas City Area Chapter of the Antique Airplane Association is one of 21 active chapters in the U.S. There is also one in Great Britain and one in Australia, and twenty affiliated type clubs. Purpose of the association

EL QUINN TOOT, owned by Don Quinn and John Elliott. (175)

TUHOLER, built and owned by Les Hildebrand. (176)

JODEL D-11, owned by Don Farrell, Prairie Village, Kans. (177)

is to "keep the antiques flying," and to help preserve the beginnings of modern aviation.

In the fall of 1966, a half-dozen national AAA members in the Kansas City area met to draft plans for the chartering of a local chapter. These aviation enthusiasts were surprised to find 58 national members living in the Kansas City, Missouri, and Kansas City, Kansas, area. Even more startling was the discovery that among these 58 members were 20 restored antiques in flying condition and several garage projects underway. A survey of these 58 members revealed that, in total, they had over 300 years of experience in some phase of aviation.

Three years and three months later, the Kansas City Area Chapter had a membership of 99 members and at least 35 aircraft. Although ostensibly local, the chapter's 1969 roster included members from New Mexico, Texas, Ohio, Nebraska and Pennsylvania, as well as Kansas and Missouri. While many of these 99 members were professionals in the field of aviation, there were among them a government printer, a builder, a cement contractor, the vice-president of a plastics concern, three dentists and a member of the state legislature. Taking its direction from the national organization, the local chapter has gradually become involved in:

. . . programs to promote air education, the restoration, design, construction and preservation of any and all kinds of aircraft and further to encourage the participation of interested persons in the enrichment in the history of flight accomplished by man; also the promotion of safety in connection with all manner of flight and the dissemination of information to all interested persons concerned in any manner of flight and aviation.

With respect to air education, most of the effort has been in the form of a casual sharing of such skills as woodworking, dope and enamel finishing, metal working and analyzing problems of design. There have been, on occasion, planned demonstrations such as one on surface preparation and application of dope by a chapter members. Talks on metal forming and riveting have been given

by another member. It is probably safe to say that the chapter carries out a massive education program via the telephone, especially when a member gets stuck on a problem.

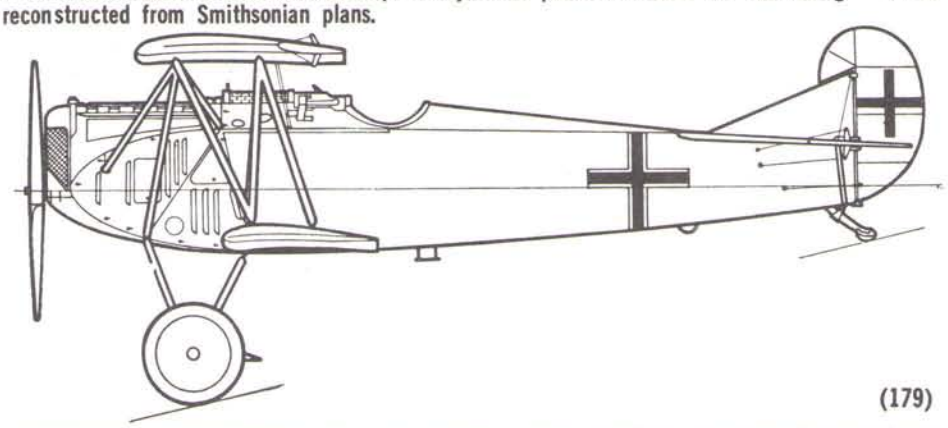
Members find an enrichment in the history of flight through sharing slides, films, publications and personal experiences. Sometimes the "sharing" takes a physical form when a member finds himself in dire need of a *Fairchild 24* landing gear, a prop for a *PA-12* or a tail wheel, with a full swivel, for a *Porterfield*. Through their newsletter, members carry out their swap-shop activity and keep informed on regional and national activities in the sport aviation field, such as fly-ins.

Chapter members in significant numbers attend fly-ins. Besides the annual Labor Day fly-in-formation to Ottumwa, Iowa; they can be found on the flight line readying for take-off to Tulsa, Chicago, St. Louis, Wichita, Reno or Ft. Worth. Their aircraft includes a 1928 *Curtiss Robin*, three *Stearman*, a *Stinson Reliant*, a *Great Lakes* Biplane, *J-2 Cub;* two *Culver Cadets;* a *Rearwin Sportster;* a *Ford Tri-Motor*, a *Waco UPF7;* two *Meyers OTWs*, a *a Monocoupe*, a *Fairchild UC61A*, 2 *Ercoupes* and a *Porterfield*. This is but a small sampling of the aircarft in the chapter.

The Chapter held its own first fly-in in the spring of 1967 at Emporia, Kansas. In spite of hail, thunderstorms, high winds and rumored tornadoes, a creditable participation resulted. The 1968 and 1969 fly-ins were held at Lawrence, Kansas. In 1969 there were over 100 antique aircraft flown in and an airshow held in conjunction with this fly-in drew a crowd of about 6,500 spectators.

On weekends and vacations chapter members continue to comb the country looking for old-timers with tales to tell, much needed parts, and even that dreamed-of-basket-case — all in the continuing effort to "KEEP THE ANTIQUES FLYING".

JOHN McMASTER and helper Frank Sampson adjust tail pieces of Fokker D-7 now being reconstructed from Smithsonian plans. **(178)**



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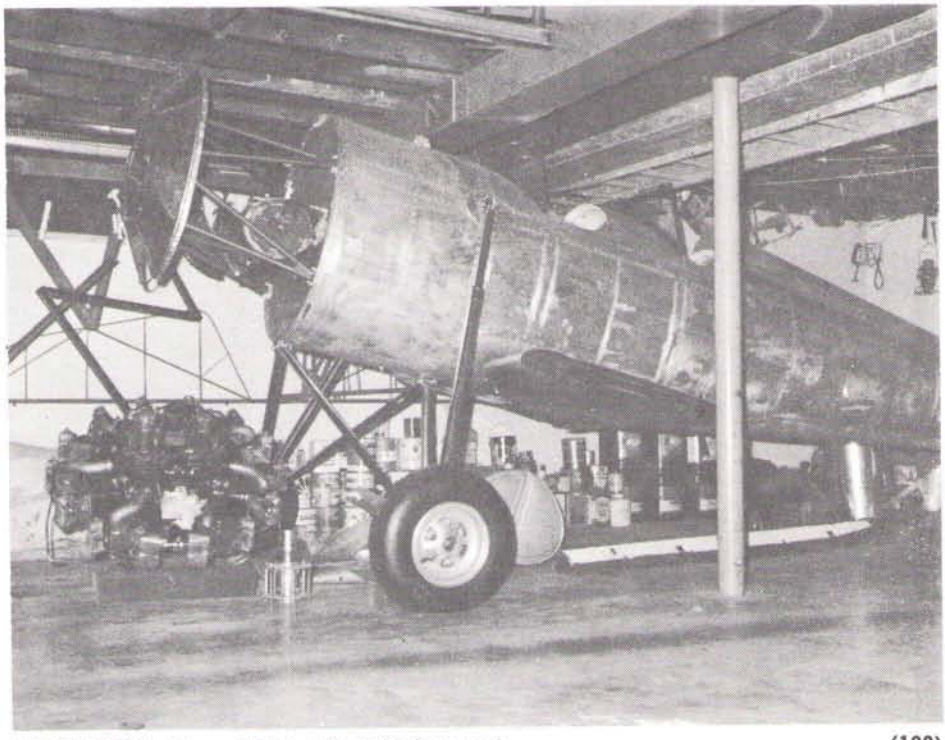
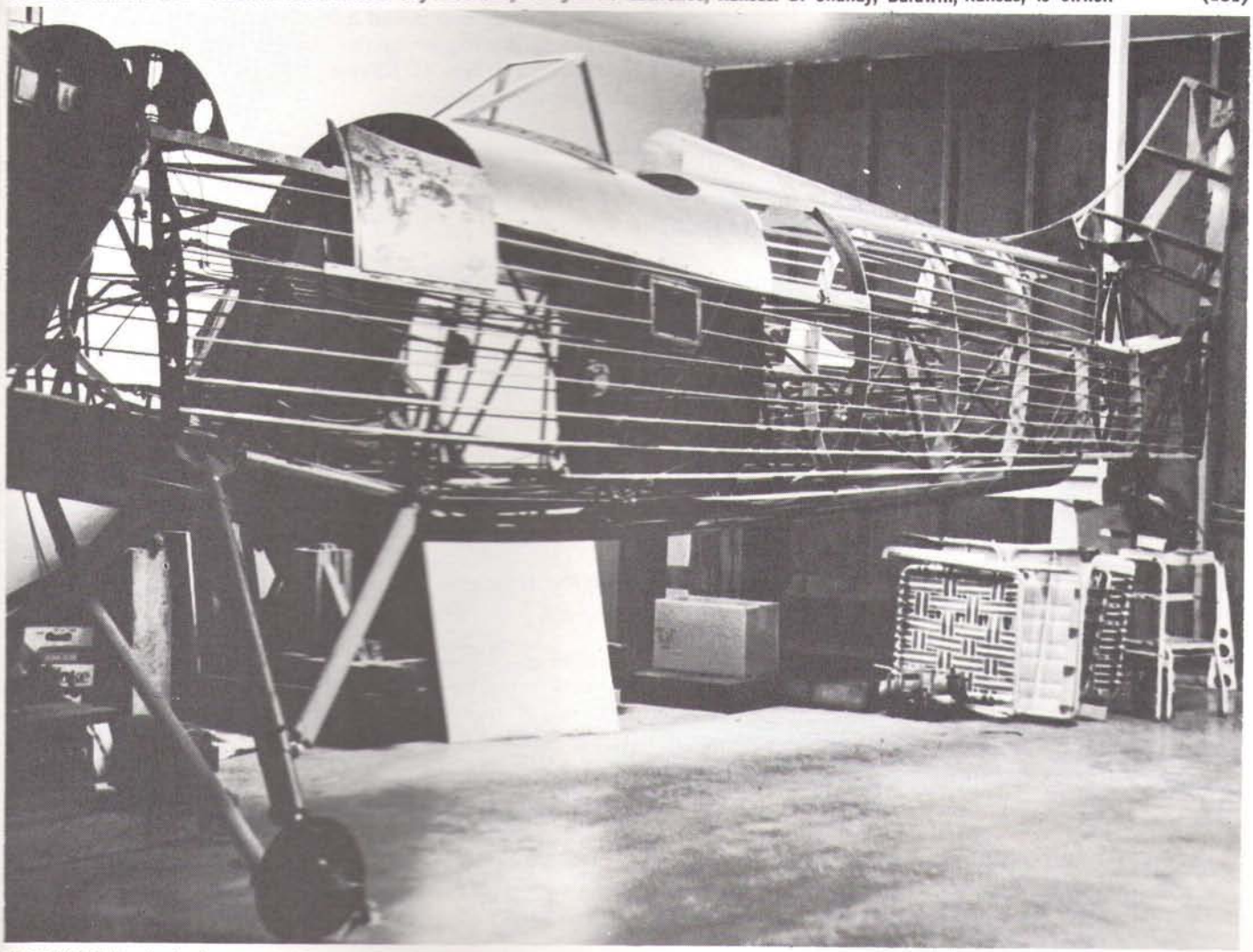


LYMAN ENLOE's Meyers OTW just fits in his basement. **(180)**

1941 STEARMAN won honors at 1969 Kansas City Area Chapter fly-in at Lawrence, Kansas. D. Chanay, Baldwin, Kansas, is owner. (181)



WACO UPF-7 dominates basement at home of Toby Tobiason. (182)

An Interview with Don Pratt

Don Pratt is one of the best known of midwest aviation historians. His files of notes, books, construction drawings and photographs are more complete than those found in most museums. He has written for aviation publications in the U.S. and also for several in England and one in Germany. He is currently working on a novel based on the early days of Airline operations in Kansas City. He is designated by the Airframe Section of the Federal Aviation Agency in Kansas City as a consultant on historic aircraft and works extensively in their historic drawing files.

Don and his wife Carol are both active pilots and own two airplanes. One is a rare 1941 Taylorcraft BF-12-65 *(the F.A.A. shows only three still licensed). The other is a* Nesmith Cougar, *a homebuilt 2-place high winged midget noted for its nimble speed and climb. Don is a member of the local chapter of the Antique Airplane Association and an officer in Chapter 200 of the Experimental Aircraft Association.*

QUESTION: What were some of the airplanes built in Kansas City that carried special or limited Approved Type Certificates?

Well, I guess Inland did that the most of any of the plane makers here. They held two regular ATC's but got a number of special one-only limited time approvals for their racing planes. For instance, the highest horsepower they had a regular ATC for in an *Inland Sport* was for the 90 hp. Warner, but they raced a 125 hp Warner powered machine in "Stock" plane races.

QUESTION: How many airplanes were produced in Kansas City between 1920 and 1940?

That's a hard one. I'd say around 1600. That's just an educated guess. American Eagle produced 760 of all models. The rest of them fiddled around with their serial numbers so much that no one can be sure. Remember, there was a whole scuttle of small back-hanger companies who produced a few machines and then gave up before the Dept. of Commerce started licensing airplanes in 1926.

All photos from Don Pratt collection.

QUESTION: Approximately how many K.C. built machines are still flying?

That's another hard one. Even the F.A.A. can't furnish that information accurately without the researcher really digging deeply. The F.A.A. currently lists all airplanes as active that hold airworthiness certificates. An airplane that burned up ten years ago can still hold an airworthiness certificate. Another educated guess would set the figure at 250. Most of these would be *Porterfield CP-65* models. There are four *American Eagle* biplanes I know of still going and two of their little Eaglet monoplanes. I know of three *Inland Sports*. There is a handful of Rearwins still going, mostly *Sportsters*, but there is a *Speedster* or two, one *Junior*, and three *Cloudsters* I know of, one owned until recently by Noel Gouldsmith of Independence, Mo. Now that's guesswork.

QUESTION: What was the largest civilian airplane built in Kansas City?

It would have to be between three of them. No drawings exist today of the three largest ships built here so I can't be sure. The three would be:

1. *The American Eagle biplane trimotor.*
2. *The George Bennett Airliner.*
3. *The Blaine Tuxhorn tricycle geared biplane airliner.*

All three had spans over fifty feet. My educated guess is that the Bennett Airliner was biggest. It was the most powerful with a 400 hp. Liberty engine in it.

Bennett Airliner (183)

QUESTION: Was there any manufacturer, who made at least ten planes, whose name and designs are relatively unknown?

Well, there was this fellow named Beal. His airplanes were all called *"Beal Centurian"* monoplanes. There doesn't seem to be any of the old timers around now who can tell a researcher much about him. Most remember his airplanes and remember that they were quite advanced for their time (1926-1930) I have pictures of his monoplanes in my collection and I have to agree, they were quite advanced for their time.

Beal Centurion (early version) (184)

Beal Centurion (late version) (185)

Most people do not know that Dewey Bonebrake, the designer of the *Inland Sport*, later went into the study of Atomic energy, was in the original Manhattan Project, and was the designer of the exploding device for the Atomic bombs dropped on Hiroshima and Nagasaki.

Don Pratt Interview

QUESTION: We found many old timers who thought a certain plane was either built or designed in Kansas City, when in fact these planes came as kits. Which manufacturers sold planes in kit form?, or plans?

Before the old C.A.A. cracked down and outlawed homebuilt airplanes in 1934 there were simply dozens of sources for plans and kits. None of them that I know of were in Kansas City.

The best known sources for plans were *Mechanics Illustrated* and *Popular Mechanics* magazines.

The best known source for kits was Ed Heath in Chicago. He was killed testing a new design in 1935 but his company still exists today as Heathkit and as you know, they have gone into a little bit of everything.

QUESTION: Rearwin Aircraft Company built a bi-wing plane. Why, and how many?

The bi-plane, called the *Ken-Royce* (for Ken and Royce Rearwin, Rae Rearwin's sons) was the first airplane built by Rearwin. It put them in the airplane business. It was a big ungainly looking contraption but had a surprising turn of speed. It won a number of early stock airplane races.

The airplane was type certificated by the old Dept. of Commerce on Sept. 18, 1929. There were either five, seven, or nine of the planes built. It's according to whose set of figures you want to believe.

QUESTION: Were there any manufacturers of aircraft engines or gliders in K.C.?

Rearwin built the Ken-Royce engines, which were LeBlond engines redesigned for high pressure lubrication. Rearwin was the only one to reach the manufacturing stage with engines. There were others who tinkered around and came up with prototypes that ran. Poyer for instance built a two-cylinder flat opposed (35 hp), a four-cylinder flat opposed (55 hp), and a 3-cylinder 40 hp that looked a lot like a Szekely.

The gliders built here were all one-only prototypes or homebuilts. The prototypes I know of were built by the Cook Glider Co. and the Columbia Glider Co. of course, there were a lot of *Waco* troop gliders built here during World War Two.

QUESTION: Were there any developments or new innovations that are still used today on private aircraft?

Most K.C. manufacturers were very conventional in their approach to structural engineering even if they weren't in their approach to design. With the prototype builders it was something different.

Don Luscombe built his "Phantom" prototype here in the old Butler building. It was the first all-metal, stressed skin lightplane and was a darned good performer. Longren pioneered quick-folding wings for storage, and interchangeable wing and tail surfaces for ease of manufacture (this is how the *Yankee's* built today)

QUESTION: Had I the power to give you any airplane manufactured in K.C. between 1925 and 1935, which one would you choose, and why?

Among the production airplanes I would have to pick the *Porterfield CP-75*. It was as good a handling machine as the *CP-65*, had better streamlining, ten more horses, and it could go. I didn't pick the *Rearwin Speedster* or *Cloudster* because even though they were faster I didn't like their engines. I didn't pick the *Inland Sport* or any of the old biplanes because I don't like to fly along with my head sticking out into the breeze in January.

Porterfield CP-75 (186)

Mr. Mulligan **(187)**

Now when you consider the prototype ships built here, I would have to pick Ben Howard's "Mr. Mulligan." Its full throttle speed in level flight was about 300 mph. It crossed the U.S. at an average speed of 238.704 mph. Its power to weight ratio was such that it could climb at 5000 feet per minute!, and it could be leaned back to scoot along at only 35 gallons per hour. Mustang performance in 1935!

QUESTION: Was there any manufacturing or attempts at manufacturing any civilian airplanes in K.C. after World War Two?

No serious ones. Commonwealth had bought out Rearwin by then and they planned to build the *Skyranger* design here but changed their minds and built it back east instead.

Deluxe Skyranger had wheel pants, lights, wing slots. **(188)**

Rearwin Skyranger **(189)**

North American talked about building the *Navion* here, but just talked.

Butler Blackhawk **(190)**

Don Pratt has helped Historic Aviation on many occasions. He is a pleasure to interview. He has a prodigious memory and almost total recall on all his notes. It's quite startling for this reporter to find some small piece of information in an old magazine or newspaper and to call Don and have him outline it in detail.

Chronology

Some important dates in the development of aviation in Greater Kansas City.

JULY 3, 1869
Completion of Hannibal bridge, and Kansas City's first balloon ascension by H. H. Holman, local jeweler.

SUMMER OF 1870
Frank Barnett, a Kansas Citian, exhibits "machine for mechanical flight" at Iowa State Fair at Keokuk.

DECEMBER 14, 1905
First of a series of dirigible airship exhibitions by Horace Wild, protege of Roy Knabenshue.

DECEMBER 24, 1909
Beginning of a week-long exhibition of flying by Charles K. Hamilton at Overland Park. Airplane was Curtiss "Rheims Racer" which had won the Gordon Bennett Cup for America in August with a speed of 47.65 mph. The Overland Park exhibition was the first known public exhibit of powered flight in Kansas City, and the second exhibit west of the Mississippi River. St. Joseph, Mo. gets the honor of being first, having witnessed Hamilton's flights at Lake Contrary the previous week.

JUNE, 1910
J. C. "Bud" Mars fails in attempt to win $5,000 prize for flying from Topeka to Overland Park.

AUGUST, 1910
J. C. McCallum "designs, builds and flies" Kansas City's first airplane, a "biplane along the lines of a *Farman*, with the propeller in front," according to newspaper accounts.

OCTOBER 5, 1911
Start of International Balloon Race from the foot of Holmes Street, Kansas City.

OCTOBER 17, 1911
Cal Rodgers, en route to California on his historic cross-country flight, stops at Kansas City, and thrills crowds with "dazzling aerial stunts."

SUMMER, 1917
Albert C. Reed obtains farm-land from Ernest Kellerstrass for use as flying field. This was Kansas City's first "airport."

OCTOBER 31, NOVEMBER 6, 1921
Aviation Meet, commemorating third anniversary of American Legion. Guests include Rickenbacker, Marshal Forch. Tex LaGrone is chief Kansas City pilot. Eddie Stinson also in attendance. Historically significant event occurred the first day of the meet: Kansas City's first air mail service, which continued for four days during the meet.

AUGUST 19, 1925
Kansas City's first aerial freight, hauled by Tex LaGrone in his Waco to Wichita.

APRIL 9, 1926
First *American Eagle* is test-flown. Start of Kansas City aircraft company that was to produce more than 700 planes and rank third nationally.

MAY 12, 1926
Inauguration of Kansas City's first regularly scheduled air mail service.

AUGUST 16, 1927
Arthur Goebel, Kansas Citian, takes off from Oakland, California in his *Travel Air* "Woolaroc" to win the ill-fated Dole race to Hawaii.

AUGUST 17, 1927
Charles Lindbergh dedicates Municipal Airport in visit to Kansas City, following his historic trans-Atlantic flight in May.

JUNE, 1928
Prototype model of *Inland Sport* successfully flown. First of a famous series of racing-type personal planes built in Kansas City.

OCTOBER 4, 1928
Butler Aircraft Co. "Skyway" is successfully test-flown at Fairfax Airport. Plane was prototype of "Blackhawk."

NOVEMBER, 1929
Stock market crash inaugurates Great Depression, snuffs out many aviation dreams throughout America.

MID-1930
Transcontinental Air Transport and *Western Air Express* merge, forming *Transcontinental and Western Air*, later to be known as *Trans World Airlines.*

JULY, 1931
Last "Eaglet" rolls off *American Eagle* assembly line, marking the end of the company.

MAY 4, 1934
Wyandotte High School's "Pup," a single-engine monoplane, is successfully test-flown at Fairfax Airport. It becomes *Porterfield* prototype.

JUNE 20, 1934
"Mr. Mulligan," famed Howard racer, is completed in Kansas City. Plane went on to win both Thompson and Bendix races the following year.

Acknowledgments

Since this volume was started, a great deal of interest has been shown by a number of persons, and it would be impossible to itemize their individual contributions. But although this chronicle was compiled by Nat Cassingham and myself with the aid and encouragement of our contributing editors, I must acknowledge three main sources of material. The Kansas City Public Library, particularly Miss Katherine Goldsmith in the Missouri Valley Room and the staff of the Business and Technical Department; the Kansas City Museum of History and Science, particularly Mrs. Maxine Schell of the Mariette Bennett Spencer Library; and the *Kansas City Star*, particularly John Doohan and his fine staff at the *Star* Library. Special thanks to L. Garratt Holland, for allowing use of his father's collection of R. S. Knowlson photographs; Earl C. Reed, Clarence Melton, Ben Gregory and Harold Neumann for providing much information and many photographs. Last but by no means least, special thanks to Don Pratt for a great deal of valuable technical information and many photographs from his own extensive research into Kansas City's aviation past.

— Ken Weyand

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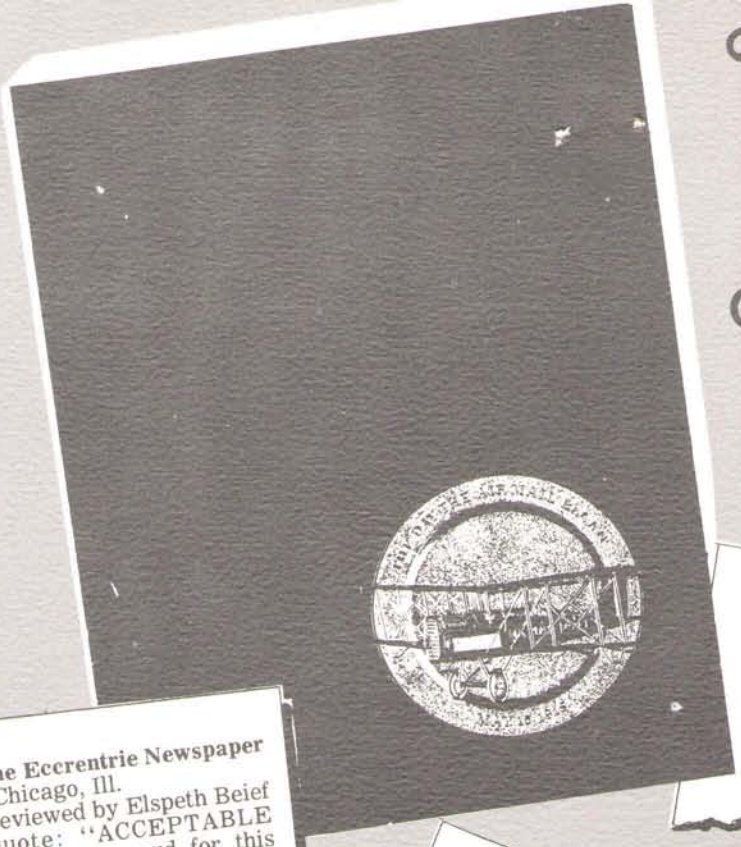
The Day The Air Mail Began



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Jane Murphy
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